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AUTHOR	Nolting, Greg: And Others
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ABSTRACT

A study was conducted to develop competency-based curriculum materials and a computer-based analysis system for farm business records to assist local vocational agriculture teachers of adult/young farmers in their group and individualized instructional programs. A list of thirty-five competencies in financial management were validated using responses from a random sample of ten adult/young farmer teachers, fifty adult/young farmer enrollees, and ten representatives of agricultural credit. The farm business records of thirty-nine enrollees in seventeen local schools throughout Missouri were used in the pilot project of analyzing records. Output data for each farm business included a depreciation schedule, cash flow, profit and loss statement, financial statement, enterprise analysis of each enterprise with comparative results, and a 1040F tax form. In addition, three computer programs that can be accessed with remote data terminals were developed. The curriculum materials developed in the project were comprised of ten lessons in a unit titled Establishing a Farm Accounting System. Among the lessons developed were (1) Introduction to Keeping Records, (2) Planning the Year's Cash Flow, (3) Developing Depreciation Schedules for Machinery, (4) Setting up Farm Inventories and Financial Statements, (5) Keeping Enterprise Records, and (6) Using Concept of Time Value in Planning. (LRA)

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Final Report

DEVELOPMENT OF AN INDIVIDUALIZED AND GROUP INSTRUCTIONAL PROGRAM BASED ON FINANCIAL MANAGEMENT FOR ADULT/YOUNG FARMERS IN VOCATIONAL AGRICULTURE PROGRAMS IN MISSOURI

(Project No. 80-131-600-2)

BEST COPY AVAILABLE

Greg Nolting
Robert Denker
Bob R. Stewart

University of Missouri-Columbia
Columbia, Missouri

June 20, 1980

Missouri Department of Elementary
and Secondary Education
Research Coordinating Unit
Jefferson City, Missouri

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Abstract

The adult/young farmer phase of vocational agriculture is rapidly growing. Standards written for adult education in vocational agriculture recommend emphasis be placed on instruction in farm business records with special emphasis the second and third year on analysis of the farm business.

The focal point of this study was the development of self-contained competency based curriculum materials and a computer-based analysis system for farm business records to assist local vocational agriculture teachers of adult/young farmers in their group and individualized instructional program. A list of 35 identified competencies in financial management were validated using reponses from a random sample of 10 adult/young farmer teachers, 50 adult/young farmer enrollees and 10 representatives of agricultural credit. Guidelines and criteria for the administration of this phase of the total adult program were developed. The farm business records of 39 enrollees in 17 local schools throughout Missouri were used in the pilot project of analyzing records. Output data for each farm business included a depreciation schedule, cash flow, profit and loss statement, financial statement, enterprise analysis of each enterprise with comparative results and a 1040F tax form. In addition, three computer programs which can be accessed with remote data terminals were developed. The expertise of an advisory committee was utilized in both the developmental and the evaluation phases of this project.

I. Statement of the Problem

The adult/young farmer phase of the vocational agriculture program in Missouri is the most rapidly growing part of the program. In order to attempt to meet the educational needs of this group, the number of full/half-time adult teachers of vocational agriculture has increased from 10 in 1970-71 to 44 in 1978-79.[1] In addition, 76 regular secondary vocational agriculture teachers held classes for adult/young farmers in 1977-78. The Department of Elementary and Secondary Education Standards[2] for adult programs recommend that each full/half-time instructor have a "core" or "management" group with which the instructor provides individualized instruction in addition to the classroom or group instruction. These standards recommend that emphasis be placed on instruction in farm business records with special emphasis the second and third year on analysis of the farm business. Instructors are responsible for making this instruction a valuable and realistic educational experience in order to develop management decision making competencies in the trainees that will enable them to set and reach worthwhile family and business goals.

A RCU Project[3] in 1977 identified the area of financial management as the one of highest priority by the three groups surveyed in northwest Missouri:

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[1] "Adult Teachers of Vocational Agriculture in Missouri," (Jefferson City, Missouri: Vocational Agriculture Section, Department of Elementary and Secondary Education, October 1978). (Mimeographed.)

[2] "Standards for Conducting Adult/Young Farmer Programs in Missouri," (Jefferson City, Missouri: Vocational Agriculture Section, Department of Elementary and Secondary Education, October 1978). (Mimeographed.)

[3] Donald Claycomb, Determining the Educational Needs of Northwest Missouri Young Farmers, (Jefferson City, Missouri: Division of Career and Adult Education, Department of Elementary and Secondary Education, Research Coordinating Unit Project Number 2267, August 24, 1977).

adult/young farmer teachers, adult/young farmer enrollees, and personnel in the agribusiness community. Adult/young farmer teachers and enrollees in other sections of Missouri have also informally indicated that the needs are greatest in the area of financial management, which includes competencies necessary to identify the strengths and weaknesses of the farm business and the ability to develop alternative management techniques to reach their goals.

Adult/young farmer teachers have attempted to meet the needs in the area of management instruction with the aid of a farm business record book developed as part of a RCU Grant in 1974-75.[4] About 32,000 copies of this record book were purchased between November 1975 and December 1979 and it is being widely used by enrollees in the Missouri Adult/Young Farmer program. In 1978, the Missouri Young Farmer Association provided a grant to be used with matching funds from the Department of Elementary and Secondary Education for Agricultural Education at the University of Missouri-Columbia to purchase a remote data terminal. The terminal is being used to access computer programs in agriculture located at the University of Missouri-Columbia and other land-grant institutions for training adult/young farmer teachers in using these aids in developing decision making competencies in the trainees.

This project utilized the expertise of vocational agriculture teachers with experience in conducting educational programs for adults, personnel from the Agricultural Education Section of the Department of Elementary and Secondary Education, staff members in Agricultural Education and Agricultural Economics at the University of Missouri-Columbia, individuals employed in the field of agricultural credit, and members of the Missouri Young Farmer/Young

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[4] Robert Denker and Donald Osburn, *Development and Dissemination of a Farm Record and Analysis System*, (Jefferson City, Missouri: Division of Career and Adult Education, Department of Elementary and Secondary Education, Research Coordinating Unit Project Number 1247, 1975).

Farm Wives Associations enrolled in Adult/Young Farmer programs in an advisory capacity. The expertise of the advisory group was utilized periodically in reviewing activities and materials being developed. This group was asked to make evaluations and recommendations as the project progressed.

II. Objectives

The goal of this project was the development of an individualized and group instructional program based on financial management for Adult/Young Farmers in vocational agriculture programs in Missouri. The specific objectives of the project and the related outcomes were as follows:

Objective one: To identify competencies needed in the various areas of financial management by adult/young farmer enrollees in the Missouri program of vocational agriculture.

Competencies in the area of financial management identified in RCU Project #2267 served as a starting point in the development of a list of competencies for adult/young farmers. Curriculum materials from other states were reviewed by the research staff and an expert committee was asked for suggestions. This preliminary list of competencies was submitted to the advisory committee. As a result of this meeting and further refinement by the research staff, a list of thirty-five competencies were identified (see Attachment I).

Objective two: To identify specific tasks and skills related to each competency.

Specific tasks for each competency were developed by the research staff. This list was reviewed by the advisory committee and included in the curriculum as key points (refer to Attachment II). The advisory committee recommended that skills not be listed for each competency since they implied abilities in the area of simple psycho-motor activities. It was assumed that these skills had been previously developed.

Objective three: To verify and validate these competencies and tasks with adult/young farmers, vocational agriculture teachers of adults and representatives of agribusiness in the field of agricultural credit.

Ten teachers of adults in agriculture, 50 young farmers and 10 representatives from agricultural credit were personally administered separate questionnaires to verify and validate the list of identified competencies in financial management. Biographical information was also obtained from these groups (refer to Attachment III). The method of selection for this sample is discussed in the Population and Sample section.

As a result of the response of these three groups, the advisory committee developed one additional competency. This resulted in a list of thirty-six competencies. Results of the verification and validation process and biographical data for the farmers were tabulated (refer to Attachment IV).

Objective four: To develop a computer-based analysis system for farm records that will enable adult/young farmers to achieve competencies in the area of financial management of the farm business.

Several computer programs were compared before the decision to trial test a program from St. Joseph Data Service, Inc., was made by the advisory committee. Records from thirty-nine farms were analyzed. This involved eighteen teachers in seventeen schools located throughout the state of Missouri. Because of the services St. Joseph Data Service, Inc., provided and their experience in providing this service to Illinois and Kentucky, the advisory committee recommended contracting with this company for computer services.

Objective five: To develop specific enterprise analysis computer output information that will be necessary to achieve the related competencies.

The output forms which were in use by St. Joseph Data Service, Inc., were used as a starting point (refer to Attachment V). With input from the advisory committee, from teachers trial testing the system and input from the research staff, appropriate changes in the forms were made. Only slight modifications were necessary.

Objective six: To develop input forms to use in transferring information from the record book to the computer center and in the running of trial programs.

Input forms which were presently being used by St. Joseph Data Service, Inc., were used in trial testing the program (refer to Attachment VI). These forms are presently being modified as a result of input from the advisory committee, teachers who trial tested the program and the research staff. Only minor modifications were necessary on the input forms.

In order to collect all of the necessary information from the Farm Business Analysis Record Book, two additional forms were developed and will be produced and sold with the record book in the future (refer to Attachment VII).

Objective seven: To develop self-contained competency based curriculum materials for local teacher use in initiating the program in local adult/ young farmer classes throughout Missouri.

Based on the findings from developing and validating the list of competencies and input from the advisory committee, three self-contained units of instruction were coordinated with the identified competencies (refer to Attachment VIII). The three units would be the basis for three years of a continuous instructional program. Unit I, Establishing a Farm Accounting System, was developed to include teaching procedures, pretests and posttests where appropriate, transparency masters, handouts, subject matter material and suggested activities for individualized instruction (refer to Attachment II).

Objective eight: To develop guidelines and criterion for the administration of the program.

Administrative guidelines from the states of Minnesota and Ohio were reviewed by the research staff and the advisory committee. A list of administrative guidelines for the Farm Business Management and Analysis Program were developed by the advisory committee and research staff to provide leadership in beginning and conducting this program as a part of a total adult program in vocational agriculture (refer to Attachment IX).

Objective nine: To develop additional computer programs that can be accessed with remote data terminals and/or used on mini-computers that will enable adult/young farmers to achieve identified competencies outside of the financial management area; i.e., determine sow productivity index.

The survey group was asked to indicate the types of additional remote computer programs that would be helpful to them. With input from these responses and the advisory committee, three remote terminal programs were developed. They are titled as follows: Income Tax Management, Swine Least Cost Ration and Marketing Strategy. In addition, one program was developed to use with the programmable calculator entitled Beef Ration (refer to Attachment X).

III. Population and Sample

Ten schools were randomly selected from the forty-four schools which have full or part time teachers of adults in vocational agriculture. The ten teachers at these schools were selected to be administered a questionnaire to represent the opinions of teachers of adults.

Five members of the Young Farmer Chapter at each of the ten schools were randomly selected. These fifty farmers were selected to represent the opinions of adult/young farmer enrollees throughout the state.

Four people were randomly selected from a list of people attending the Missouri Rural Bankers Conference at the University of Missouri-Columbia. Three people were randomly selected from a list of field personnel in the Production Credit Association. Also, three people were randomly selected from a list of personnel in the Farmers Home Administration. These ten people were administered a questionnaire to represent the opinions of people employed in agricultural credit in Missouri.

This total group of seventy people; ten adult teachers, fifty farmers and ten credit people; were selected because of their expertise in the needs of farmers in the area of financial management.

IV. Conclusions and Recommendations

It is the opinion of the research staff that the objectives of this study were achieved. The following products were developed:

1. A list of validated competencies and tasks needed by adult/young farmer enrollees in the area of financial management.
2. A computer-based analysis program for the Missouri Young Farmer Record Book.
3. Three computer-based programs to be accessed by remote data terminals and one programmable calculator program.
4. One unit of self-contained competency based curriculum materials for local teacher use in the adult/young farmer program.
5. Guidelines for the administration of the farm business management and analysis program.

Plans have been made to implement the program and to provide inservice workshops for vocational agriculture teachers in 1980-81. The foundation work conducted this year should provide for the basis of a viable program serving the needs of vocational agriculture teachers and adult/young farmer enrollees in the state of Missouri.

V. Disclaimer

The activity which is the subject of this report was supported in whole or in part by funds from the Department of Elementary and Secondary Education, Division of Career and Adult Education. However, the opinions expressed herein do not necessarily reflect the position or policies of the Missouri Department of Elementary and Secondary Education or the Division of Career and Adult Education, and no official endorsement should be inferred.

ATTACHMENT I

Attachment I

FINANCIAL MANAGEMENT COMPETENCIES

1. Be able to develop a planned cash flow for use in the farming business for the upcoming year.
2. Be able to analyze a planned cash flow for use in the farming business for the upcoming year.
3. Be able to interpret a planned cash flow for use in the farming business for the coming year.
4. Be able to use and monitor a planned cash flow for use in the farming business throughout the year.
5. Be able to base decision making in the area of cash flow on the analysis of enterprise budgets.
6. Be able to develop realistic family and farm business goals which give consideration to family living requirements and business requirements over the next five years.
7. Be able to record expenses and receipts and determine gross profit.
8. Be able to complete a profit and loss statement for their farming business.
9. Be able to analyze a profit and loss statement for their farming business.
10. Be able to use a profit and loss statement to make managerial decisions for their farming business.
11. Be able to complete a financial statement for their farming business.
12. Be able to use a financial statement based on their farming business.
13. Be able to use a financial statement based on their farming business to make managerial decisions.
14. Be able to develop an inventory system for all property owned.
15. Be able to develop a depreciation schedule for depreciable items owned.
16. Be able to calculate fixed and variable costs data.
17. Be able to analyze fixed and variable costs data to use in making managerial decisions.
18. Be able to analyze an asset to liability ratio to make managerial decisions for the farming business.

19. Be able to analyze a current asset to current liability ratio to make managerial decisions for the farming business.

20. Be able to analyze ratio of capital turnover to make managerial decisions for the farming business.

21. Be able to analyze a net income to current debt ratio to make managerial decisions for the farming business.

22. Be able to computer a fourth quarter analysis of their farming business to be used for tax planning.

23. Be able to complete state and federal income tax forms.

24. Be able to utilize the concept of time value of money in making managerial decisions.

25. Be able to make managerial decisions concerning efficiency factors for a given livestock enterprise.

26. Be able to make managerial decisions concerning efficiency factors for a given crop enterprise.

27. Be able to make managerial decisions concerning labor efficiency for their farming operation.

28. Be able to make managerial decisions concerning the rate of return on investment for various farm enterprises and for entire farm.

29. Be able to make managerial decisions concerning capital gain/loss.

30. Be able to make managerial decisions involving buying, renting and leasing facilities and machinery.

31. Be able to analyze credit needs, sources and interest rates in terms of the short, intermediate and long term loans.

32. Be able to utilize the concept of financial leverage in maximizing profits.

33. Be able to analyze the potential for expansions of the farm business.

34. Be able to make managerial decisions involving buying, renting and leasing land.

35. Be able to develop lease and partnership agreements that are equitable to all parties.

ATTACHMENT II

The following forms are preliminary drafts only.

Farm Business Management and Analysis Program

Unit I - Establishing a Farm Accounting System

Lesson 1 - Orientation to the Farm Business Management and Analysis Program

A. Review

None

B. Objective

To develop realistic family and farm business goals.

C. Motivation

Start the discussion by pointing out that all of us have goals. Some of our goals relate to our farm business while other goals relate more to the family. Some goals are more important than others or, put another way, there are $10 goals and $10,000 goals. We should keep in mind the overall importance of our goals and treat each of them accordingly.

Often times we set short range goals to achieve major goals in the future. Because of outside factors, we need to stay flexible in order to achieve our major goals. Often times, because of changing factors, we change our goals!

Without a set of well planned goals, one may not know where he is headed. A good set of records and the Farm Business Management and Analysis Program can be used like a map to indicate where we are and to assist us in decision making so that goals can be obtained. Remember any road will get you if you don't know where you are going.

Enrollees should be allowed to react to the presented concept of goals. Identifying goals may be new to many enrollees; however, few can argue that they don't have any goals.

D. Key Points

Key points which will be accomplished are as follows:

1. Understand the Farm Business Management and Analysis Program and how it may benefit us.
2. Develop possible farm and family goals.
3. Analyze growth of the farm business.
4. Complete enrollment forms.

E. Introduction of Information

1. The Farm Business Management and Analysis Program

Show transparency TM-1 to illustrate the relationship between the Farm Business Management and Analysis Program and other phases of the adult program which they are familiar with. Actually, there is little change between this program and what we used to call the "core" group.

Transparency TM-2 should be shown to show, in further detail, the three units that will be taught over the next three years. Major emphasis is given to the ten lessons in Unit I which will be taught the first year.

Emphasize that there will be one meeting per month and one visit per month. Visits to the farm will be spent assisting the farmers in keeping the record book current by completing the area which was presented at the monthly meeting.

Also, emphasize the importance for having good records the first year so that a computerized analysis may be made. Once this is accomplished, decisions concerning the farm business may be made in years two and three.

Transparency TM-3 illustrates the goals of the Farm Business Management and Analysis Program. These should be coordinated with the benefits of the program which are shown on transparency TM-4.

Farmers are becoming "traffic managers" of a two way flow of dollars. They are relying more on purchased inputs, increasing the size of business, using more credit and using more managerial skills.

Show transparency TM-5 to illustrate the situation of a few farmers in Missouri. It should be noted that these are older established farmers and not necessarily representative of the group present; however, it does illustrate trends.

2. Develop Farm and Family Goals

Keeping in mind some of the trends in farming and what the Farm Business Management and Analysis Program will attempt to accomplish, let's turn our attention to setting farm and family goals.

In setting goals, there are several points to consider:

a. all family members should have input.
b. recognize the difference between family goals and individual goals.
c. recognize the interaction between long and short term goals.

d. goals should be realistic.
e. competition between goals is normal.
f. goals will probably be modified over time.

Distribute HO-1 and HO-2 to enrollees and allow them a few minutes to formulate some of their goals.

Show transparencies TM-6 and TM-7 and ask each enrollee to show one of their short, intermediate and long range goals. Fill in transparencies TM-6 and TM-7 with their suggestions. You may want to inject a few examples at the beginning.

An example of some farm and family goals is as follows:

FARM BUSINESS GOALS

	1 to 2 Years Short Term	3 to 5 Years Intermediate Term	Over 5 Years Long Term
Net Income:	$15,000	$20,000	$25,000
Size of Farm:			
A. Acres	120	200	360
B. Sales	$80,000	$100,000	$120,000
C. Investment	$250,000	$300,000	$400,000
Financial Security:			
A. Savings	0	0	$10,000
B. Percent Equity	40%	50%	70%
Other:			

FAMILY GOALS

	Short Term	Intermediate Term	Long Term
Home:	home improvement, carpeting + new furniture	add family room	new home
Development of Family Members:	develop better farming expertise by attending vocational agriculture classes	send wife to nearby community college	send children to college
Social and Recreation:	take minimum 5 day family vacation	take longer trip to California to see brother	travel to a foreign country
Community and Church Involvement:	attend church regularly	actively participate in money making activities	be church officer
Other:			

Another copy of HO-1 and HO-2 may be distributed so that families will have a fresh copy to formulate their goals at home.

3. Analyzing Growth of the Farm Business

In order to measure progess, one must analyze his situation and determine if growth is actually taking place. Such things as interest charges, tax rates and consumption rate must be taken into account.

Transparency TM-7 should be shown and discussed so that enrollees can see the formula and the relationships of the terms.

An example of how the formula actually works should be given. Some figures you may want to use are as follows:

$L = 60{,}000/60{,}000 = 1.00$
$R = .14$
$j = .11$
$t = .05$
$c = 8{,}000/10{,}000 = .8$

$$\begin{array}{llll} \text{Rate of Growth} = & [1.00\ (.14 - .11) + .14] & (1 - .05) & (1 - .8) \\ & [1.00\ (.03) \qquad + .14] & (.95) & (.2) \\ & \qquad (.14) & (.95) & (.2) \end{array}$$

$\text{Growth} = .026 \text{ or } 2.6\%$

Notice what happens if the consumption rate changes to 8,000/11,000.

$L = 30{,}000/60{,}000 = 2.00$
$R = .14$
$j - .11$
$t = .05$
$c = 8{,}000/11{,}000 = .727$

$$\begin{array}{llll} \text{Rate of Growth} = & [1.00\ (.14 - .11) + .14] & (1 - .05) & (1 - .73) \\ & [1.00\ (.03) \qquad + .14] & (.95) & (.27) \\ & \qquad (.14) & (.95) & (.27) \end{array}$$

$\text{Growth} = .036 \text{ or } 3.6\%$

Also, notice what happens if the percent return on assets changes to .19.

$L = 60{,}000/60{,}000 = 1.00$
$R = .19$
$j - .11$
$t = .05$
$c = 8{,}000/10{,}000 = .8$

$$\begin{aligned}
\text{Rate of Growth} &= [1.00\ (.19 - .11) + .14]\ (1 - .05)\ (1 - .8)\\
&\ [1.00\ (.08) + .14]\ (.95)\ (.2)\\
&\ (.22)\ (.95)\ (.2)
\end{aligned}$$

$$\text{Growth} = .042 \text{ or } 4.2\%$$

Other examples may be shown by using examples from the enrollees.

4. Complete Enrollment Forms

Handout HO-3 to enrollees to obtain more information about them. Other items such as meeting night and time to begin, how to handle social activities, collection of fees and time of day for visits.

Collect HO-3 for your files.

F. Group Discussion

Sufficient time should be allotted so that enrollees have all questions concerning the program answered.

G. Conclusions

Conclusions which may be reached include:

1. Records are necessary to tell where we are at and where we are going.
2. The Farm Business Management and Analysis Program should assist in meeting reasonable goals.
3. Growth of the business is affected by several factors.
4.

H. Announcements

Next meeting, we will be working on keeping records.

I. Social

J. On the Farm Instruction

When visiting enrollees following this lesson, you may want to discuss their short and long range goals. You may want to give input in the short range goals to assist them in meeting their long range goals.

Table 1

RELATIONSHIP OF FULL-TIME ADULT TEACHER WITH TOTAL ADULT/YOUNG FARMER PROGRAM

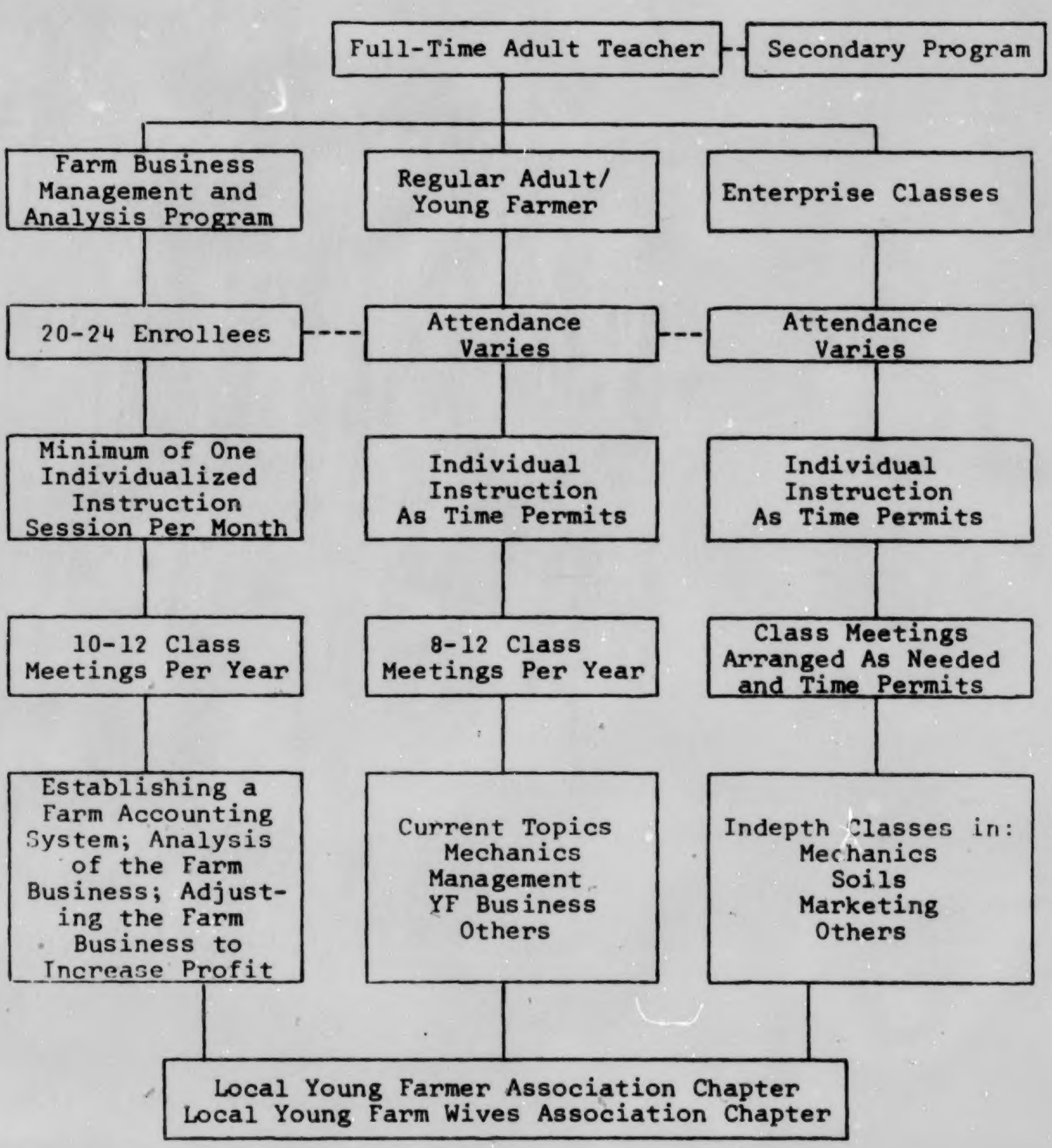
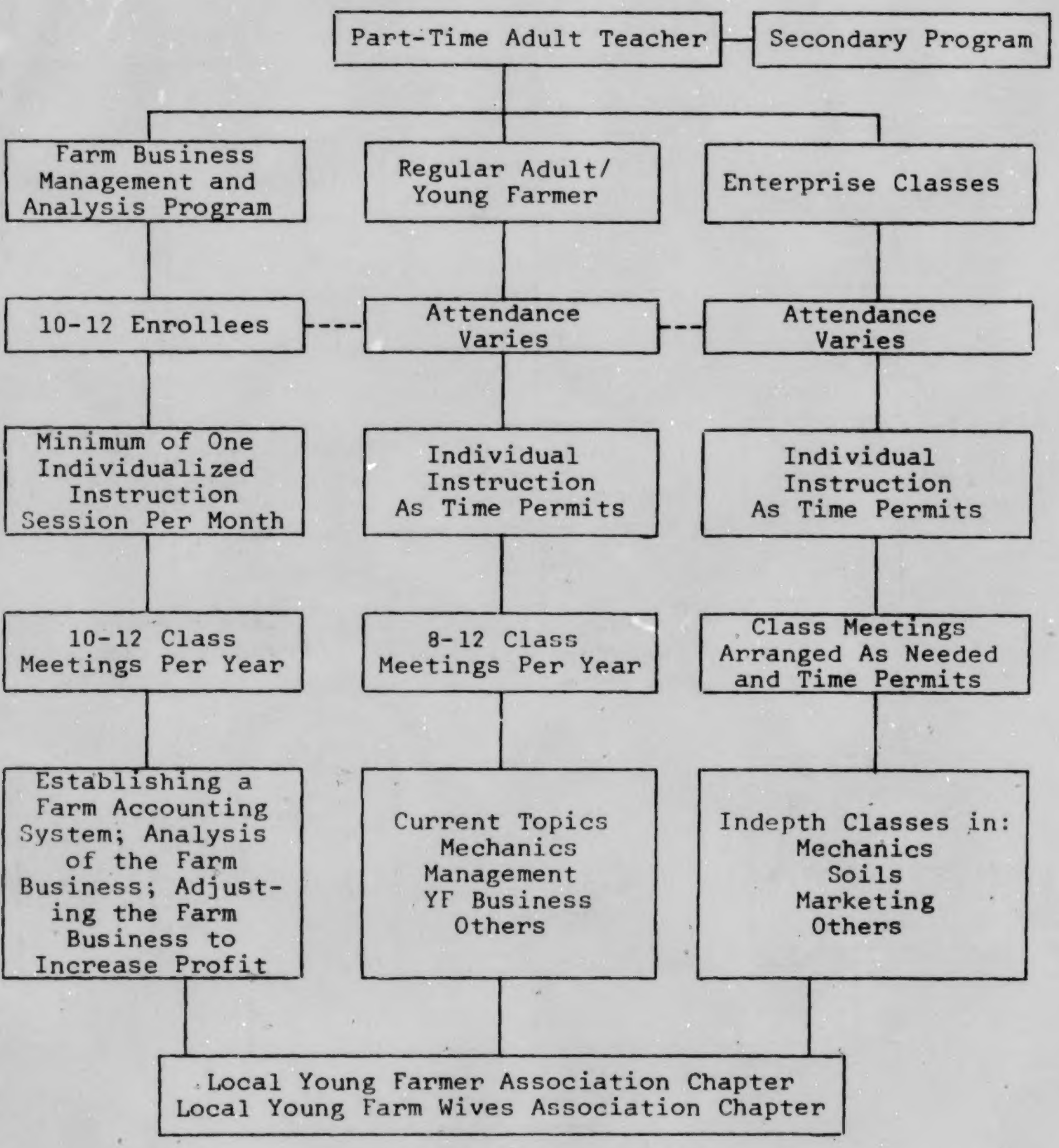

Full-Time Adult Teacher
Secondary Program
Farm Business Management and Analysis Program
Regular Adult/ Young Farmer
Enterprise Classes
20-24 Enrollees
Attendance Varies
Attendance Varies
Minimum of One Individualized Instruction Session Per Month
Individual Instruction As Time Permits
Individual Instruction As Time Permits
10-12 Class Meetings Per Year
8-12 Class Meetings Per Year
Class Meetings Arranged As Needed and Time Permits
Establishing a Farm Accounting System; Analysis of the Farm Business; Adjusting the Farm Business to Increase Profit
Current Topics Mechanics Management YF Business Others
Indepth Classes in: Mechanics Soils Marketing Others
Local Young Farmer Association Chapter
Local Young Farm Wives Association Chapter

Table 2

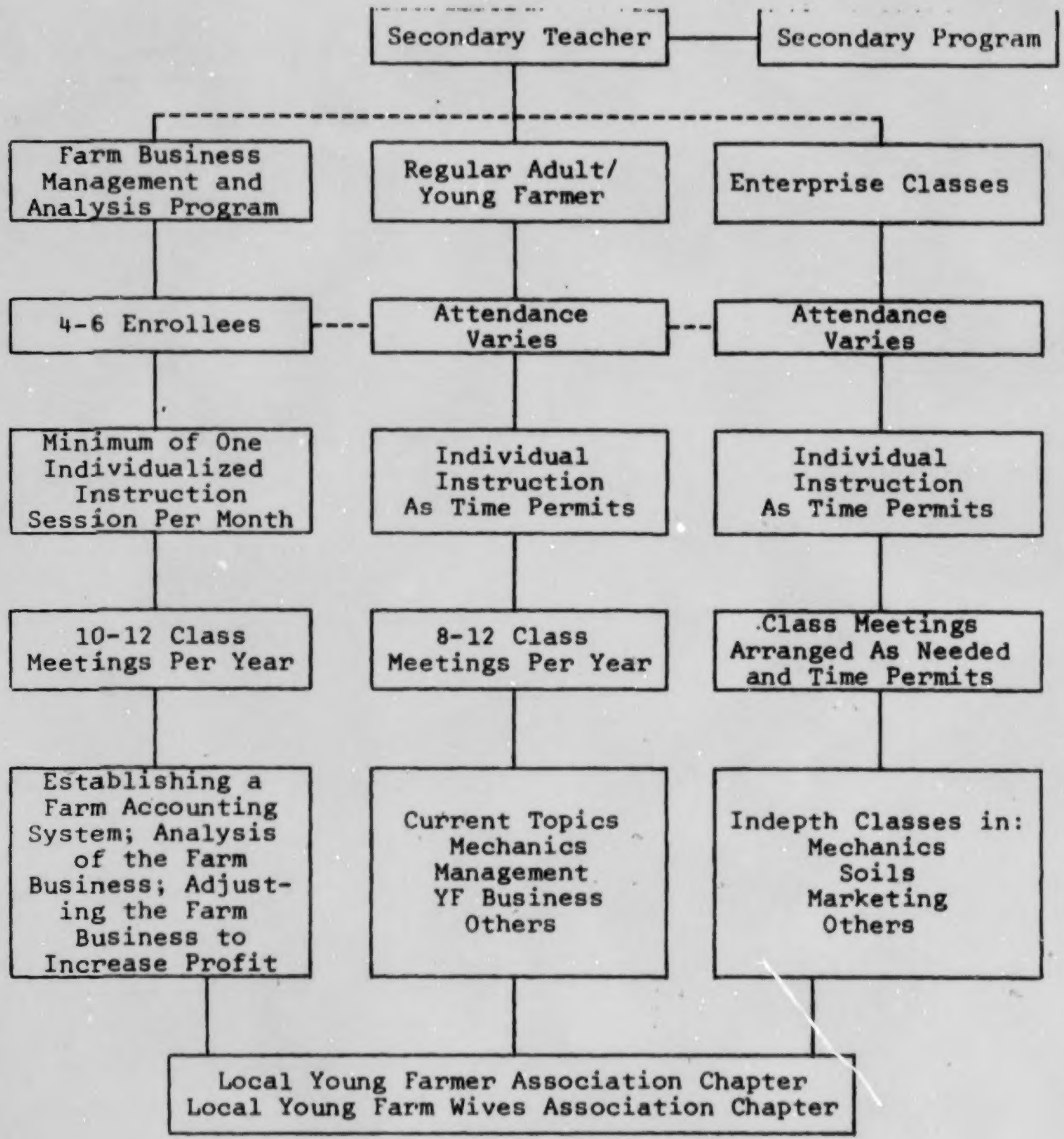
RELATIONSHIP OF PART-TIME ADULT TEACHER WITH TOTAL ADULT/YOUNG FARMER PROGRAM


Part-Time Adult Teacher
Secondary Program
Farm Business Management and Analysis Program
Regular Adult/ Young Farmer
Enterprise Classes
10-12 Enrollees
Attendance Varies
Attendance Varies
Minimum of One Individualized Instruction Session Per Month
Individual Instruction As Time Permits
Individual Instruction As Time Permits
10-12 Class Meetings Per Year
8-12 Class Meetings Per Year
Class Meetings Arranged As Needed and Time Permits
Establishing a Farm Accounting System; Analysis of the Farm Business; Adjusting the Farm Business to Increase Profit
Current Topics Mechanics Management YF Business Others
Indepth Classes in: Mechanics Soils Marketing Others
Local Young Farmer Association Chapter
Local Young Farm Wives Association Chapter

TM-1c

Table 3

RELATIONSHIP OF FULL-TIME SECONDARY TEACHER WITH TOTAL ADULT/YOUNG FARMER PROGRAM


Secondary Teacher
Secondary Program
Farm Business Management and Analysis Program
Regular Adult/ Young Farmer
Enterprise Classes
4-6 Enrollees
Attendance Varies
Attendance Varies
Minimum of One Individualized Instruction Session Per Month
Individual Instruction As Time Permits
Individual Instruction As Time Permits
10-12 Class Meetings Per Year
8-12 Class Meetings Per Year
Class Meetings Arranged As Needed and Time Permits
Establishing a Farm Accounting System; Analysis of the Farm Business; Adjusting the Farm Business to Increase Profit
Current Topics
Mechanics
Management
YF Business
Others
Indepth Classes in:
Mechanics
Soils
Marketing
Others
Local Young Farmer Association Chapter
Local Young Farm Wives Association Chapter

FARM BUSINESS MANAGEMENT AND ANALYSIS PROGRAM

UNIT I -- ESTABLISHING A FARM ACCOUNTING SYSTEM

	MONTH
LESSON 1 -- ORIENTATION TO THE FARM BUSINESS MANAGEMENT AND ANALYSIS PROGRAM	OCTOBER
LESSON 2 -- INTRODUCTION TO KEEPING RECORDS	NOVEMBER
LESSON 3 -- RECORDING RECEIPTS AND EXPENDITURES	DECEMBER
LESSON 4 -- PLANNING THE YEAR'S CASH FLOW	JANUARY
LESSON 5 -- DEVELOPING DEPRECIATION SCHEDULES FOR MACHINERY	FEBRUARY
LESSON 6 -- DEVELOPING DEPRECIATION SCHEDULES FOR LIVESTOCK AND DEVELOPING INVENTORIES	MARCH
LESSON 7 -- DEVELOPING AN INVESTMENT RECORD FOR REAL ESTATE	APRIL
LESSON 8 -- KEEPING ENTERPRISE RECORDS	MAY
LESSON 9 -- MAKING THE MID-YEAR CASH FLOW CHECK	JUNE
LESSON 10 -- USING CONCEPT OF TIME VALUE IN PLANNING	SEPTEMBER

UNIT II -- ANALYSIS OF THE FARM BUSINESS

UNIT III -- ADJUSTING THE FARM BUSINESS TO INCREASE PROFIT

TM-2

GOALS OF FARM BUSINESS MANAGEMENT AND ANALYSIS PROGRAM

A. DEVELOPMENT AND EVALUATION OF LONG TERM PLANS

B. RECORD KEEPING

C. INCOME TAX MANAGEMENT

D. FINANCIAL MANAGEMENT

E. CREDIT PLANNING AND ANALYSIS

F. ENTERPRISE ANALYSIS

BENEFITS OF FARM BUSINESS MANAGEMENT AND ANALYSIS PROGRAM

1. INCREASES KNOWLEDGE ABOUT FARM BUSINESS.

2. IDENTIFIES FARM AND FAMILY GOALS.

3. CHARTS FARM GROWTH AND FINANCIAL PROGRESS.

4. IMPROVES INCOME TAX MANAGEMENT.

5. IMPROVES USE OF BORROWED CAPITAL.

6. IMPROVES CHANCES FOR SUCCESS.

SITUATION OF FARMS ENROLLED IN UMC MAIL-IN RECORDS PROGRAM FOR SELECTED YEARS

	1968	1974	1978
ACRES	677	717	755
VALUE OF LAND	169,067	285,301	279,876
TOTAL CAPITAL	240,076	423,813	633,993
CAPITAL TURNOVER	3.22:1	5.15:1	4.3:1
RETURN TO MANAGEMENT	-2,312	-5,806	18,535
RETURN TO CAPITAL AND MANAGEMENT	9,877	23,806	69,254
% RETURN TO CAPITAL AND MANAGEMENT	4.11	5.62	10.92

TM-6

GOAL SETTING

Name: ______________________________ Date: ____________

Address: ____

What do you as a family consider most important for your future welfare, happiness, and security? One of the steps for improving the farm and home business is to clarify what is wanted. You may know of things you have wanted as a family, but it takes considerable thought and discussion among family members to agree upon what is most important and which things come first. As a family, write down your goals for this year and for the future, then number them in order of priority. It is important that goals be reviewed periodically to see if conditions have changed. If the goals are too inflexible, they may be a liability to your progress rather than an asset.

FARM BUSINESS GOALS

	1 to 2 Years Short Term	3 to 5 Years Intermediate Term	Over 5 Years Long Term
Income:			
Size of Farm:			
A. Acres			
B. Sales			
C. Investment			
Financial Security:			
A. Savings			
B. Percent Equity			
Other:			

TM-7

FAMILY GOALS

	Short Term	Intermediate Term	Long Term
Home:			
Development of Family Members:			
Social and Recreation:			
Community and Church Involvement:			
Other:			

(NOTE: These headings are given only as a guide for possible areas to be considered; other headings or subheadings may be added. Goals should be set in quantitative terms in order to measure progress toward attainment of your goals. Quantitative terms may include amount of income, size of farm, percent increase in net worth, amount of income spent on home and development of family members.)

FORMULA TO MEASURE GROWTH

ANNUAL RATE OF GROWTH = $\left[L(R-J) + R\right](1-T)(1-c)$

L = DEBT/EQUITY

R = PERCENT RETURN ON ALL ASSETS

J = INTEREST CHARGE PERCENTAGE

T = TAX RATE PERCENTAGE

c = CONSUMPTION AS A % OF FARM PROFIT

HO-1

GOAL SETTING

Name: ______________________________ Date: __________

Address: ____

What do you as a family consider most important for your future welfare, happiness, and security? One of the steps for improving the farm and home business is to clarify what is wanted. You may know of things you have wanted as a family, but it takes considerable thought and discussion among family members to agree upon what is most important and which things come first. As a family, write down your goals for this year and for the future, then number them in order of priority. It is important that goals be reviewed periodically to see if conditions have changed. If the goals are too inflexible, they may be a liability to your progress rather than an asset.

FARM BUSINESS GOALS

	1 to 2 Years Short Term	3 to 5 Years Intermediate Term	Over 5 Years Long Term
Income:			
Size of Farm:			
A. Acres			
B. Sales			
C. Investment			
Financial Security:			
A. Savings			
B. Percent Equity			
Other:			

HO-2

FAMILY GOALS

	Short Term	Intermediate Term	Long Term
Home:			
Development of Family Members:			
Social and Recreation:			
Community and Church Involvement:			
Other:			

(NOTE: These headings are given only as a guide for possible areas to be considered; other headings or subheadings may be added. Goals should be set in quantitative terms in order to measure progress toward attainment of your goals. Quantitative terms may include amount of income, size of farm, percent increase in net worth, amount of income spent on home and development of family members.)

HO-3

ENROLLMENT FORM

Name ______________________ Age _____ Social Security No. ______________

Spouses Name ______________________ Age _____ Social Security No. ______________

Mailing Address ____

Home Phone ______________________ Business Phone ______________________

Location of Farm	Children(s) Name	Age(s)

Type(s) of enterprise(s): (please check)

Dairy ______________________

Beef Breeding ______________________

Beef Fattening ______________________

Wheat ______________________

Soybeans ______________________

Cotton ______________________

Swine Preeding ______________________

Swine Fattening ______________________

Milo ______________________

Others ______________________

Appropriate Time for Farm Visit: Check appropriate space(s)

8	9	10	11	12	1	2	3	4	5	6	
											Monday
											Tuesday
											Wednesday
											Thursday
											Friday
											Saturday

Farm Business Management
and Analysis Program

Unit I - Establishing a Farm Accounting System

Lesson 2 - Introduction to Keeping Records

A. Review

The previous lesson, Orientation to the Farm Business Management and Analysis Program, should be reviewed. List all conclusions reached at your last meeting so that class members will be able to see an overall picture of what the program can do for them. Possible conclusions may have included:

1. Records are merely roadmaps to assist us in reaching our goals.
2. The Farm Business Management and Analysis Program will assist in meeting reasonable goals.
3. Growth of the business is effected by several factors.
4.

B. Objective

To identify forms and procedures for recording receipts and expenditures.

C. Motivation

Have a box with bills, cancelled checks and statements in it. Start the class by dumping them on the table and comment that this is one way of keeping records. The weakness of this system should be pointed out and discussed.

The problem associated with the situation described should be pointed out. Have enrollees compare this system with other similar systems

D. Key Points

Key points which will be accomplished tonight are as follows:

1. Identify reasons for keeping farm records.
2. Identify the kinds of records to keep.
3. Use common terms associated with record keeping.

4. Incorporate general suggestions for using the Missouri Farm Business Analysis Record Book into their operation.

5. Be familiar with the major divisions of the record book.

6.

E. Introduction of Information

1. Identify Reasons for Keeping Records

Show Transparency TM-1 and discuss reasons for keeping records. Farm records are kept for many purposes as outlined below. Selection of purposes to fit your needs will determine which records should be kept.

a. External reasons - these are reasons that effect decisions as a result of relations with others and include the following:

(1) Correct and defensible income tax reporting. IRS income tax reports and audits are "painful" in proportion to the lack of adequate records. Farmers with adequate records find it much simpler to complete tax returns and can defend them in case of an audit.

(2) Tax management. Adequate and accurate records are needed to determine the tax due, but to avoid overpayments. Good records will also assist in planning year-end management techniques to level income and gain some larger tax savings. As an example, if a farmer with four exemptions had a taxable income of -0- in 1978 and of $22,400 in 1979, the total income tax would be -0- for 1978 and $3,129 for 1979. However, if a perfect job of leveling income had been done (perfect job is probably never possible) and had a taxable income of $11,200 each year, the tax due each year would be $665 for a total of $1,300 for the two years. Or, a savings of $1,799 for time spent in tax planning. (Note: Income averaging would help if qualified, but it only applies to that income which is $3,000 above 120% of the last four years averagable income.)

(3) Self-employment social security taxes. Since these are paid only on certain farm income, a good set of records is necessary.

(4) Social security taxes on hired labor. This has become an important factor since many farmers will have employees that meet the minimum requirement.

(5) Good credit relations. As credit usage has increased lenders are placing more emphasis on good records.

(6) Sound credit planning. Farmers need adequate records to plan future credit needs and to provide adequate protection for their business.

(7) Business Continuity. Death, injury, disease or other causes can force a spouse or child to suddenly assume responsibility for a farm business. Details of credit, taxes, cost basis of real estate, etc., are all needed at this time.

(8) Landlord-tenant relationship. End-of-year settlements of shared costs and income require that adequate records are kept.

b. Internal reasons - these are probably the most important since the basic reason for the farm business is to make a profit. Some of the internal reasons for keeping records are:

(1) Identify strong and weak parts of the business. Good records will help answer questions such as: Is the business too small? Which enterprise should I expand? Which should be eliminated? Are my costs under control? Is my production too low?

(2) Planning business changes. Budgeting, estimating income or expenses, and planning changes in the farm business will be much more accurate if the individual farm data is used.

(3) Operation and control of the business. The prior year's records can set standards to compare this year's operation against. If it is falling behind, corrective steps can be taken before it is disastrous.

2. Identify Kinds of Records to Keep

Show Transparency TM-2 because enrollees will need to decide their purposes for keeping records and then keep those records that will help in reaching their objectives. Farmers that select most of the external and internal reasons listed earlier will keep the following records:

a. Cash income or receipts. This is a record of all cash coming into the farm business. It includes cash received from the sale of grain, livestock, custom work, breeding stock, etc. Money borrowed would also be recorded since it is coming into the business. These cash items are separated into different columns because of tax treatment and for analysis of the business.

b. Cash expenditures. All cash paid out including that for capital items (as machinery and breeding livestock) and payments on principal or interest is included. The same principal applies as to dividing into columns.

c. Inventories. A record of all property owned plus its quantity and value, usually at the start of the year, is kept also for tax purposes and to use in analysis.

d. Depreciation records. These are needed to arrive at current or "book value." Depreciation is a deductible expense for income tax and must be considered in the analysis of the farm business.

e. Family living records. These are not necessary for the farm business, but often are desired by the family and may be useful in itemizing income tax deductions.

f. Enterprise accounts. By recording all income and expense items that are directly related to a specific enterprise (other than overhead items) on the enterprise pages, an analysis will be more meaningful and accurate.

g. Cash flow. Budget and summary. This provides a place to summarize the cash records and is needed for both tax and analysis purposes. As a budget, an estimated cash flow is a valuable tool in planning the year's business and in securing credit.

h. Profit and loss statement. This form brings together the year's business. It includes the cash expenditures and receipts and a place for inventory adjustments. It is used primarily in business analysis and for credit purposes.

i. Net worth statement. (Frequently called a Financial Statement.) This is a record of an individual's or business' assets (things owned) and liabilities (owed items). It is needed to measure financial growth and, also, frequently needed when obtaining credit.

3. Using Common Terms

In order to be sure that you and the enrollees understand each other, it is probably necessary to define some terms used in keeping farm records. An understanding of these will also be helpful in income tax work and in the analysis of a farm business. Distribute HO-1 for discussion purposes.

a. Expenses - usually is cash leaving the farm business. Another term that is used frequently is disbursements. The word expenditures is used in the record book since Forms 7-10 have columns for investments in capital items, principal payments, and non-farm expenses or investments - items which many farmers would not consider to be farm expenses.

b. Receipts - usually is cash coming into the farm business. The term income implies the same thing.

c. Assets - this term is used in a net worth statement and is everything that is owned. Current assets are those assets which will be in the form of cash within one (1) year. Feed, cash in the bank, and fattening cattle are examples of usual current assets. Intermediate assets are those which have a life of two to ten (2-10) years. Breeding livestock, machinery, etc., are usually in this group. These are often called working assets since they produce income. The sale of these would usually reduce future farm income. Long-term assets usually have a life of over ten (10) years. Land, buildings, etc., are usually in this group.

d. Liabilities - this term is also used in a net worth statement and is the opposite of assets. Liabilities are the amounts "owed." Current liabilities are those items due within a year. Short-term notes, feed bills, and the amount of a long-term note due within a year are examples of short term liabilities. Intermediate liabilities are notes and bills due within two to ten (2-10) years. Examples would be notes on machinery, etc., that are due later than this year. Long-term liabilities are items due over a longer period of time, usually over ten (10) years. Loans on real estate, most building, etc., are of this nature.

e. Net worth - is the difference between assets and liabilities. It is the amount an individual would have in cash if everything was sold and all the bills and debts were paid.

f. Asset:Liability ratio - relationship between total assets and total liabilities. If a farmer has total assets of $120,000 and liabilities of $60,000, the farmer has an asset:liability ratio of 2:1. Another way of expressing the same thing is that this farmer's debt: asset ratio is 50%. Or, a debt:net worth of 1:1.

g. Current asset:Current liability ratio - a ratio as in part f, but this uses only current assets and current liabilities. It is a measure of the farmer's liquidity.

h. Inventory - a record showing what is owned, including quantity and value. Specific instructions for valuing different inventory items are in the Young Farmer Record Book.

i. Principal - usually the unpaid balance owed on a loan.

j. Basis - might be considered "book value" of an item. As an example, if a machine is purchased for $1,000 and then depreciated $600, it has a basis of $400. If it is then traded on a new machine and $800 "boot" paid, the basis of the new machine is $1,200.

k. Capital items - usually items with a life of over one year which are used to produce something. A breeding cow, tractor, land, etc., would be capital items. A feeder pig would not be a capital item.

l. Operating items - usually a cost or return involved in production and recovered within a year. As examples: feed, fertilizer and fuel would be operating items.

m. Depreciation - the amount a capital item decreases in value. It is deducted as an expense in income tax reporting. Depreciation may occur as a result of wear, tear, or just because it becomes out-of-date. Three methods are commonly used: straight line, declining balance, and sum of the year's digits. The Farmer's Tax Guide explains each of these.

n. Salvage value - the remaining value of a capital item when its use is completed. It would be the expected value of a machine when it is traded off or abandoned. Salvage value of a breeding cow would probably be the value on the market for "meat."

o. Investment credit - a term used in income tax reporting. Currently, the rate is 10% for qualifying items and provides a direct tax credit for this amount. A simple example would be that $1,000 less income would be paid in the year a $10,000 tractor was purchased as a result of investment credit if certain qualifications are met.

p. Liquidity - refers to the ability to meet current obligations. It is usually expressed in a current asset: current liability ratio. A farmer with good liquidity would have enough cash on hand and other current assets to meet bills as they come due.

q. Solvency - refers to the total asset:total liability ratio and is a measure of the financial strength (ability to withstand business reverses) of an individual or business.

4. General Suggestions

Some general suggestions for using the Farm Business Analysis (Young Farmer) Record Book should be discussed. Show Transparency TM-3 to illustrate some general suggestions pertaining to the use of the record book.

a. Accurate records are needed to make out income tax reports and to profitably study your farm business. This book is designed for both with a minimum of effort. It is also convenient to divide the farm business into enterprises with the use of Forms 5 and 10. If enterprise accounting is not desired, these should be omitted.

b. Expenses and receipts should be recorded daily or weekly. This distributes the record work and keeps records up-to-date. Use a sharp lead pencil.

c. Different methods may be used in recording entries. Make entries when paid or when payment is received for sales. Most farmers have an account at a few local businesses and pay this bill one time per month. This simplifies record keeping, but does require that the lump sum payment entered in the Total Expenditure column be divided into the appropriate columns as feed, fertilizer, seed, etc. These farmers would borrow from a credit agency as a bank, PCA, etc., to pay these monthly bills if their cash flow was inadequate. Farmers that have unpaid accounts and/or bills for several months may want to insert a page in the record book to record these to provide a record of outstanding liabilities.

d. Your bookkeeping will be more accurate if you:

  (1) Have two bank accounts, one for the farm business only and one for family expenditures. However, this system will work with one account for farm and family.

  (2) Pay practically all business expenses by check.

  (3) Have an adding machine with a tape. This removes much of the drudgery of record keeping and it is easier to check your figures if you have a machine that prints on tape.

e. It should be noted that column numbers on all receipt and expense forms are numbered to agree with line numbers on Form 27 - Cash Flow. As an example, feed purchased in column 20 on Form 7 and line 20 on Form 27.

f. The enterprise account pages may be used several different ways:

  (1) One farmer may have enterprises broken down as hogs, beef cattle, corn, beans and wheat.

  (2) A farmer renting from several different landlords may have them broken down as Smith Farm, Jones Farm, etc.

  (3) A specialized farmer with hogs may have them as Lot 1 hogs, Lot 2 hogs, etc.

  (4) A specialized farmer could also divide his hog enterprise into a feeder pig enterprise and a finishing enterprise, etc.

g. You will notice the first receipt form is Form 10. This should be paper clipped to the receipt tab since you start with Form 2. (Form 10 is the back of Form 2.) Always have the lower number on your left when the book is open - Form 2, 7, 12, etc. Enrollees may want to open a record book as you discuss what the broad areas are. Go through the record book one tab at a time. Refer back to the general suggestions as you progress.

F. Group Discussion

Ample time should be allocated for enrollees to ask questions about record keeping in general. The Missouri Farm Business Analysis Record Book and the advantages it provides should be discussed.

G. Conclusions

Conclusions which may be reached include:

a. The record book is divided into the broad areas of receipts, expenditures, depreciation, inventory, real estate, hired labor, credit sources, family living and summary and analysis.

b. The underlying principal is that of double entry as a safeguard against errors.

c. The record book is constructed to allow for enterprise records which may be analyzed for profitability.

d. Accurate records are a must for income tax reports and a profitability study of the farm.

e. Bookkeeping will be more accurate if two bank accounts are used.

f. More transactions will be recorded if all business expenses are paid by check.

g. The record book allows for the evaluation of personal spending.

h. The record book is a method for preserving information about the farm business which can be used in future planning.

i. The record book should be beneficial in obtaining credit if needed.

j.

k.

H. Announcements

Next meeting, we will be working with recording receipts and expenditures.

I. Social

J. On-the-Farm Instruction

When visiting class members following this lesson, be sure that each one has purchased a Missouri Farm Business Analysis Record Book. They should be somewhat familiar with the various divisions within the book and how they relate to one another.

You may want to help them arrange their book so that they will be ready to record receipts and expenses at the next meeting. You may also assist them in allocating room for enterprise records.

REASONS TO KEEP FARM RECORDS

1. EXTERNAL REASONS
    - A. INCOME TAX REPORTING
    - B. TAX MANAGEMENT
    - C. SELF-EMPLOYMENT SOCIAL SECURITY TAXES
    - D. SOCIAL SECURITY TAXES ON HIRED LABOR
    - E. CREDIT RELATIONS
    - F. SOUND CREDIT PLANNING
    - G. BUSINESS CONTINUITY
    - H. LANDLORD TENNANT RELATIONSHIPS
2. INTERNAL REASONS
    - A. IDENTIFY STRENGTHS AND WEAKNESSES OF BUSINESS
    - B. PLANNING BUSINESS CHANGES
    - C. OPERATION AND CONTROL OF THE BUSINESS

TYPES OF RECORDS
TO KEEP

1. CASH INCOME (RECEIPTS)
2. CASH EXPENDITURES
3. INVENTORIES
4. DEPRECIATION
5. FAMILY LIVING RECORDS
6. ENTERPRISE ACCOUNTS
7. CASH FLOW
8. PROFIT AND LOSS STATEMENT
9. NET WORTH STATEMENT

GENERAL SUGGESTIONS IN USING THE RECORD BOOK

1. USED FOR TAXES AND ANALYSIS.
2. UPDATE WEEKLY.
3. RECORD ENTRIES WHEN BILLS ARE PAID.
4. RECORD BOOK SHOULD AGREE WITH BANK BALANCE.
5. COLUMN NUMBERS ON RECEIPTS AND EXPENSES AGREE WITH LINE NUMBERS ON CASH FLOW.
6. ENTERPRISE ACCOUNTS ARE FLEXIBLE.
7. PAPERCLIP FIRST PAGE TO THE TAB.

Terms Used in Farm Records

1. **Expenses** - usually is cash leaving the farm business. Another term that is used frequently is **disbursements.** The word **expenditures** is used in the record book since Forms 7-10 have columns for investments in capital items, principal payments, and non-farm expenses or investments - items which many farmers would not consider to be farm expenses.

2. **Receipts** - usually is cash coming into the farm business. The term **income** implies the same thing.

3. **Assets** - this term is used in a net worth statement and is everything that is owned. **Current assets** are those assets which will be in the form of cash within one (1) year. Feed, cash in the bank, and fattening cattle are examples of usual current assets. **Intermediate assets** are those which have a life of two to ten (2-10) years. Breeding livestock, machinery, etc., are usually in this group. These are often called **working assets** since they produce income. The sale of these would usually reduce future farm income. **Long-term assets** usually have a life of over ten (10) years. Land, buildings, etc., are usually in this group.

4. **Liabilities** - this term is also used in a net worth statement and is the opposite of assets. Liabilities are the amounts "owed." **Current liabilities** are those items due within a year. Short-term notes, feed bills, and the amount of a long-term note due within a year are examples of short-term liabilities. **Intermediate liabilities** are notes and bills due within two to ten (2-10) years. Examples would be notes on machinery, etc., that are due later than this year. **Long-term liabilities** are items due over a longer period of time, usually over ten (10) years. Loans on real estate, most buildings, etc., are of this nature.

5. **Net worth** - is the difference between assets and liabilities. It is the amount an individual would have in cash if everything was sold and all the bills and debts were paid.

6. **Asset:Liability ratio** - relationship between total assets and total liabilities. If a farmer has total assets of $120,000 and liabilities of $60,000, the farmer has an **asset:liability ratio** of 2:1. Another way of expressing the same thing is that this farmer's **debt:asset ratio** is 50%. Or, a **debt:net worth** of 1:1.

7. **Current asset:Current liability ratio** - a ratio as in number 6, but this uses only current assets and current liabilities. It is a measure of the farmers **liquidity.**

8. **Inventory** - a record showing what is owned, including quantity and value. Specific instructions for valuing different inventory items are in the Young Farmer Record Book.

9. **Principal** - usually the unpaid balance owed on loan.

10. **Basis** - might be considered the "book value" of an item. As an example, if a machine is purchased for $1,000 and then depreciated $600, it has a basis of $400. If it is then traded on a new machine and $800 "boot" paid, the basis of the new machine is $1,200.

11. **Capital items** - usually items with a life of over one year which are used to produce something. A breeding cow, tractor, land, etc., would be capital items. A feeder pig would not be a capital item.

12. **Operating items** - usually a cost or return involved in production and recovered within a year. As examples: feed, fertilize and fuel would be operating items.

13. **Depreciation** - the amount a capital item decreases in value. It is deducted as an expense in income tax reporting. Depreciation may occur as a result of wear, tear, or just because it becomes out-of-date. Three methods are commonly used: straight line, declining balance, and sum of the year's digits. **The Farmer's Tax Guide** explains each of these and an explanation of using them is included in Lesson 5 of this unit.

14. **Salvage value** - the remaining value of a capital item when its use is completed. It would be the expected value of a machine when it is traded off or abandoned. Salvage value of a breeding cow would probably be the value on the market for "meat."

15. **Investment credit** - a term used in income tax reporting. Currently, the rate is 10% for qualifying items and provides a direct tax credit for this amount. A simple example would be that $1,000 less income would be paid in the year a $10,000 tractor was purchased as a result of investment credit if certain qualifications are met.

16. **Liquidity** - refers to the ability to meet current obligations. It is usually expressed in a current asset:current liability ratio. A farmer with good liquidity would have enough cash on hand and other current assets to meet bills as they come due.

17. **Solvency** - refers to the total asset:total liability ratio and is a measure of the financial strength (ability to withstand business reverses) of an individual or business.

Farm Business Management
and Analysis Program

Unit I - Establishing a Farm Accounting System

Lesson 3 - Recording Receipts and Expenditures

A. Review

The previous lesson, Introduction to Keeping Records, should be reviewed. List all conclusions reached at your last meeting so that classmembers will be able to see an overall picture of what the record book can do for them. Possible conclusions may have included:

1. The record book is divided into the broad areas of receipts, expenditures, depreciation, inventory, real estate, hired labor, credit sources, family living and summary and analysis.
2. The underlying principal is that of double entry as a safeguard against errors.
3. The record book is constructed to allow for enterprise records which may be analyzed for profitability.
4. Accurate records are a must for income tax reports and a profitability study of the farm.
5. Bookkeeping will be more accurate if two bank accounts are used.
6. More transactions will be recorded if all business expenses are paid by check.
7. The record book allows for the evaluation of personal spending.
8. The record book is a method for preserving information about the farm business which can be used in future planning.
9. The record book should be beneficial in obtaining credit if needed.
10.
11.
12.

B. Objective

To correctly enter receipts and expenditures and develop a summary of yearly receipts and expenditures which can be utilized in developing a summary cash flow.

C. Motivation

Tell a story about the farmer that put all of his bills and cancelled checks in empty boxes in which he had previously purchased rubber boots. At the end of the year, he would take the boxes to his local lawyer to have his income taxes figured.

The farmer measured his volume of business during the year by the number of boxes filled with receipts and checks he had accumulated during the year.

The lawyer always charged a high fee for completing the income tax forms because of the amount of time necessary to arrange the mess into a usable form.

Point out the problem of the method described in the motivational section as being one of needing a system for sorting and recording. Have enrollees evaluate this system as well as other systems commonly used in the community.

Other weaknesses, such as costs, knowledge of the business and losses of receipts and checks may be pointed out.

Administer the accompanying quiz as a motivating experience for enrollees.

D. Key Points

Key points which will be accomplished tonight are as follows:

1. Record operating and capital receipts.
2. Complete an accuracy check for receipts.
3. Record loan repayments, operating and capital expenditures.
4. Complete an accuracy check for expenditures.
5. Transfer monthly totals to cash flow summary.

E. Introduction of Information

1. Recording Operating and Capital Receipts

Copies of HO-1, HO-2, HO-3 and HO-4 should be distributed to enrollees. It should be noted that these forms are for recording receipts (money coming into the business). Columns are grouped by the type of receipt and by the way the item is reported for income tax purposes. Some general hints for recording receipts which are found on the record book tab for receipts are as follows:

a. At the start of the month, headings should be written in Columns 1-4 and 9-16 as needed. It will be easier if corn, as an example, is in Column 1 on all receipt forms.

b. Enter the total received in the Receipt Column, plus a brief description in the Item Column.

c. Enter the total again in Columns 1-17 if a regular farm receipt. Also, enter quantity in the correct column.

d. Money borrowed is entered in Total Receipt Column and in Column 18 since it is money coming into the farm business. An entry should also be made on Forms 21 or 22 .

e. At the end of the month or the end of page, an accuracy check can be made by totaling Columns 1-19 - it should equal the total for the Receipt Column.

f. If all entries for the month are on one page, transfer the totals to the Summary - Form 27. If more than one page is used, carry the totals forward to the next Form 2, etc.

g. If enterprise accounting is used, Form 5 will also need to be completed for each entry that can be allocated. A description and amount as weight or bushels should be entered plus the dollar amount.

h. Some general hints on the receipts pages:

    (1) A farmer that buys fertilizer for a rented farm and is paid by the landlord, would enter the cost of fertilizer as an expense and the repaid amount in Column 7 - Resale.

    (2) Under Breeding Livestock, qualify means this sale qualifies for Capital Gains tax treatment.

    (3) Bought and Raised Column on both Breeding and Non-Breeding Livestock need to be completed so tax records may be completed accurately.

    (4) Money transferred from the Family Living Account or from Non-Farm Income into the Farm Business can be entered in Column 19.

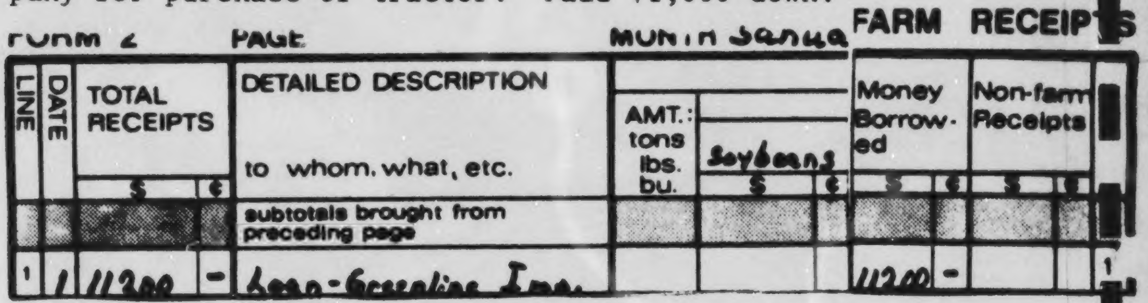
i. Non-Farm Receipts may be taxable or non-taxable sources of money. Examples: off-farm wages, interest income, transfers from savings accounts, transfers from separate family living accounts.

j. Keep entries for the same transaction on the same line as it is distributed in the columns.

Distribute HO-5 for enrollees to make entries on their forms. Allow ample time for them to make the first entry. Then, with the use of an overhead projector and TM-1, TM-2, TM-3 and TM-4, illustrate how to make the first entry. Complete the rest of the entries by allowing enrollees time to make an entry, then follow with your example.

Examples of entries on receipt forms are as follows:

January 1 - Borrowed $11,200 from Greenline Implement Company for purchase of tractor. Paid $2,800 down.

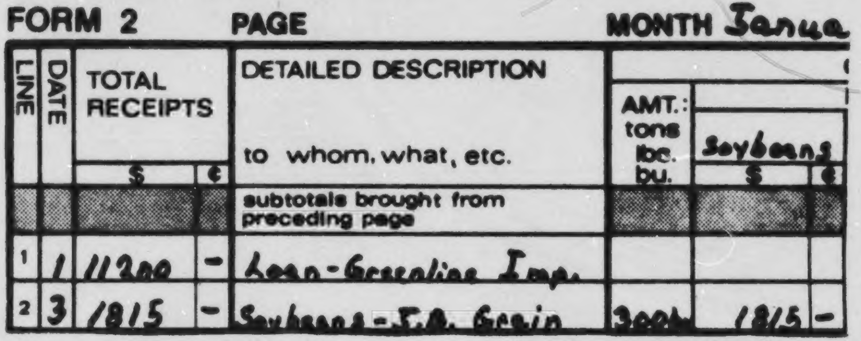

FORM 2 PAGE MONTH Janua FARM RECEIPTS

*

LINE	DATE	TOTAL RECEIPTS $	¢	DETAILED DESCRIPTION to whom, what, etc.	AMT.: tons lbs. bu.	Soybeans $	¢	Money Borrowed $	¢	Non-farm Receipts $	¢	
				subtotals brought from preceding page								
1	1	11200	-	Loan-Greenline Imp.				11200	-			1

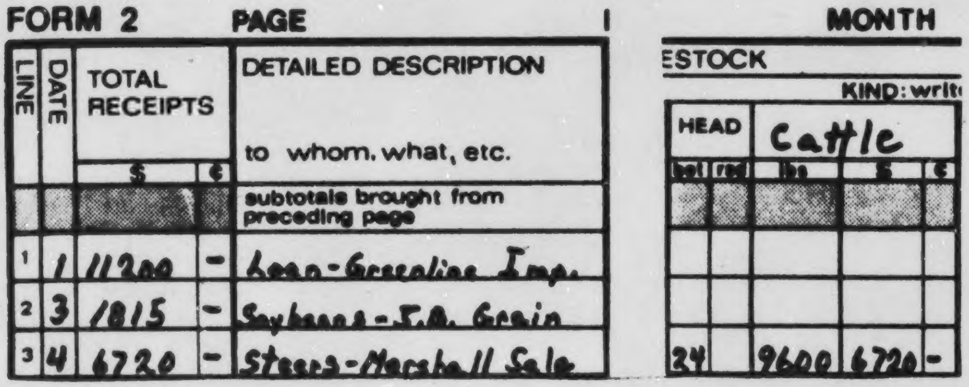
*NOTE - an entry will also appear as an expenditure.

January 3 - Sold 300 bushels of soybeans to J.B. Grain Buying for $1,815.


FORM 2 PAGE MONTH Janua

LINE	DATE	TOTAL RECEIPTS $	¢	DETAILED DESCRIPTION to whom, what, etc.	AMT.: tons lbs. bu.	Soybeans $	¢
				subtotals brought from preceding page			
1	1	11200	-	Loan-Greenline Imp.			
2	3	1815	-	Soybeans-J.B. Grain	300bu	1815	-

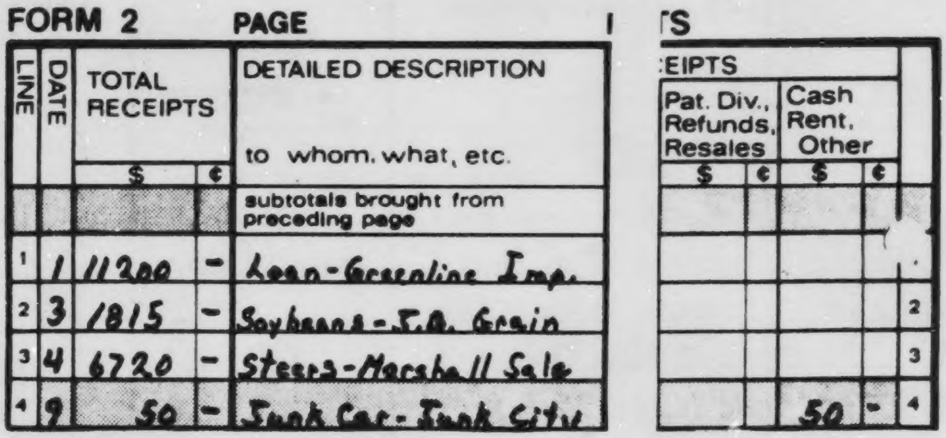
January 4 - Sold 24 steers weighing 9,600# for $6,720 on the Marshall Sale Circuit.


FORM 2 PAGE MONTH

ESTOCK KIND: writ

LINE	DATE	TOTAL RECEIPTS $	¢	DETAILED DESCRIPTION to whom, what, etc.	HEAD Cattle hd	rcd	lbs	$	¢
				subtotals brought from preceding page					
1	1	11200	-	Loan-Greenline Imp.					
2	3	1815	-	Soybeans-J.B. Grain					
3	4	6720	-	Steers-Marshall Sale	24		9600	6720	-

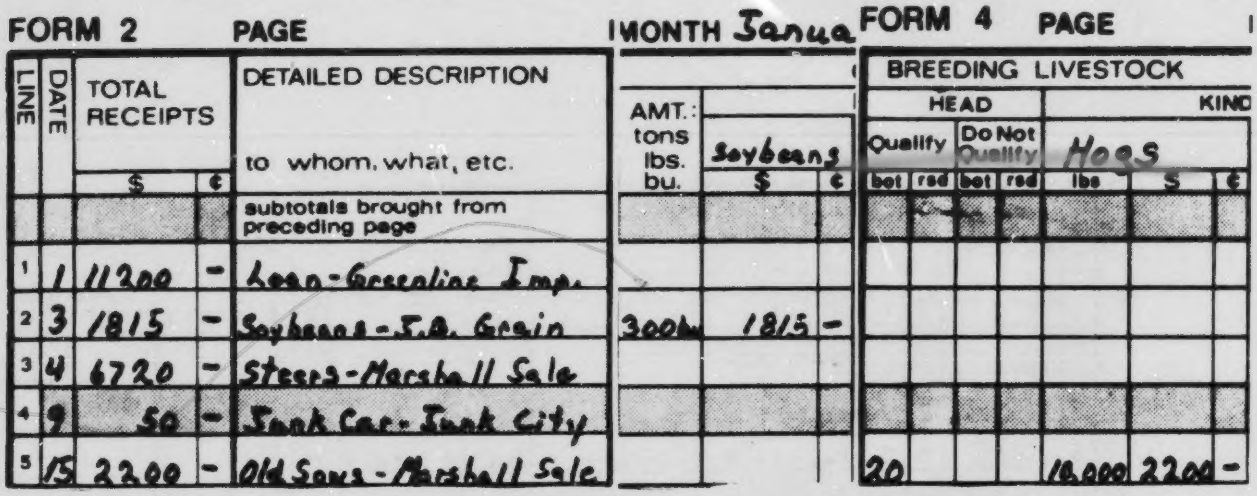
January 9 - Sold junk car to Junk City, U.S.A. for $50. Car is not on depreciation schedule.



FORM 2 PAGE TS

LINE	DATE	TOTAL RECEIPTS $	¢	DETAILED DESCRIPTION to whom, what, etc.	EIPTS Pat. Div., Refunds, Resales $	¢	Cash Rent, Other $	¢	
				subtotals brought from preceding page					
1	1	11200	-	Loan-Greenline Imp.					
2	3	1815	-	Soybeans-S.A. Grain					2
3	4	6720	-	Steers-Marshall Sale					3
4	9	50	-	Junk Car-Junk City			50	-	4

January 15 - Sold 20 old sows on Marshall Sale Circuit. Total weight 10,000#, sold for $2,200. These sows are on depreciation schedule, 8/1/77.



FORM 2 PAGE MONTH Janua

LINE	DATE	TOTAL RECEIPTS $	¢	DETAILED DESCRIPTION to whom, what, etc.	AMT.: tons lbs. bu.	Soybeans $	¢
				subtotals brought from preceding page			
1	1	11200	-	Loan-Greenline Imp.			
2	3	1815	-	Soybeans-S.A. Grain	300bu	1815	-
3	4	6720	-	Steers-Marshall Sale			
4	9	50	-	Junk Car-Junk City			
5	15	2200	-	Old Sows-Marshall Sale			

FORM 4 PAGE

BREEDING LIVESTOCK HEAD Qualify bot	Qualify rsd	Do Not Qualify bot	Do Not Qualify rsd	KIND Hogs lbs	$	¢
20				10,000	2200	-

January 20 - Sold to 4-Square Market three cows, on depreciation schedule, purchased 4/7/72. They weighed 2,550# and brought $1,052.

(See top of next page.)

FORM 2 **PAGE** **MONTH** Janua

LINE	DATE	TOTAL RECEIPTS $	¢	DETAILED DESCRIPTION to whom, what, etc.	AMT.: tons lbs. bu.	Soybeans $	¢	BREE HE Qualify bot	rad	IND: write in below ¢	Cows lbs	$	¢
				subtotals brought from preceding page									
1	1	11200	-	Loan-Greenline Imp.									
2	3	1815	-	Soybeans-S.D. Grain	300bu	1815	-						
3	4	6720	-	Steers-Marshall Sale									
4	9	50	-	Junk Car-Junk City									
5	15	2200	-	Old Sows-Marshall Sale									
6	20	1052	-	3 cows to 4-square				3			2550	1052	-

January 25 - Sold 200 head of market hogs to 4-Square Market. Average weight was 232#. Eighty head were bought in Nobember. The check received was for $14,043.75. However, this included an old boar for $123.75, purchased 5/6/78, weight was 550#.

FORM 2 **PAGE** **MONTH** Janua

LINE	DATE	TOTAL RECEIPTS $	¢	DETAILED DESCRIPTION to whom, what, etc.	AMT.: tons lbs. bu.	Soybeans $	¢
				subtotals brought from preceding page			
1	1	11200	-	Loan-Greenline Imp.			
2	3	1815	-	Soybeans-S.D. Grain	300bu	1815	-
3	4	6720	-	Steers-Marshall Sale			
4	9	50	-	Junk Car-Junk City			
5	15	2200	-	Old Sows-Marshall Sale			
6	20	1052	-	3 cows to 4-square			
7	25	13920	-	200 mkt hogs-4-square			
8	25	123	75	1 boar-4-square			

FORM 3 **PAGE**

NON-BREEDING LIVI

LINE	HEAD bot	rad	Hogs lbs	$	¢
2					
3					
4					
5					
6					
7	80	120	46400	13920	-

(Continued top of next page.)

MONTH

ESTOCK

KIND: writ

HEAD		Cattle		
bot	rsd	lbs	$	¢
24		9600	6720	-

FORM 4 PAGE MONTH

BREEDING LIVESTOCK

HEAD				KIND: write in below					
Qualify		Do Not Qualify		Hogs			Cows		
bot	rsd	bot	rsd	lbs	$	¢	lbs	$	¢
20				18,000	2200	-			
3							2550	1052	-
1				550	123	75			

2. Complete an accuracy check for receipts. At the end of the month, each column (1-19) is totaled. A check for accuracy is done by adding the total in each column. Next, each column total should be added and compa ed to the total Receipt Column.

The following illustrates an accuracy check for the example entries.

1815 -	50 -	13920 -	6720 -	2323 75	1052 -	11200 -
1	8	9	10	14	15	18

		37080	75	subtotals to next page or totals to summary page F 27

3. Recording Loan Repayments, Operating and Capital Expenditures.

Copies of HO-6, HO-7, HO-8 and HO-9 should be distributed to enrollees. It should be noted that these forms are for recording expenditures (money going out of the business). Columns are grouped by the type of expense. As an example, Columns 26-28 are expenses that are deducted on income tax forms in the year incurred and can usually be assigned to a specific enterprise. Columns 29-38 are expenses which are also deductible in the year incurred, but usually cannot be assigned to a specific enterprise (these are usually called overhead expenses which are allocated to enterprises one time a year). Columns 39-41 are expenditures for items as feeder pigs and feeder calves and are deducted on tax forms in the year in which the item is sold. Columns 42-45 are for capital investments and are deducted in the form of depreciation (the amounts appearing in these columns should also be recorded on Forms 12, 14, and/or 19). Columns 46-47 do not transfer to the summary page (Form 27) as a farm expense but represent money leaving the business. Some general hints for recording expenditures that are found on the expenditure tab are:

a. At the start of the month, headings should be written in Columns 39-43 as needed. The same order should be followed for all 12 months. Headings on Form 10 may also be inserted if enterprise accounting will be used.

b. Enter the total expense in Total Cost Column, plus a brief description in the Description Column.

c. Enter the total in Columns 20-47. Also, enter quantity when needed.

d. Money paid on borrowed funds is entered in Total Cost Column and Column 46 since it is leaving the farm business. An entry should also be made on Form 21 or 22.

e. Money taken out of the farm account for family living or for a non-farm investment is recorded in the Total Cost Column and Column 47.

f. If enterprise accounting is used, those costs associated with an enterprise on Form 10 are also listed on Forms 7 and 8 in the appropriate column with a description and amount.

g. Some general hints - utility costs and other costs by the farm business and the family can be handled one of two ways: (1) enter the total in the Utility Column each month and at the end of the year, subtract the necessary percentage used by the family, or (2) enter the percentage used by the farm business on each month's expenses form and the remaining on Form 24 - Family Living.

h. If dealer credit is used for the purchase of an item as a tractor and repayment is over a period of time, the correct method of entering the transaction would be to list the total cost of the item on Forms 7 and 9, then record the amount owed as a loan on Forms 2 and 4.

i. When items as machinery are puchased and an item is traded in, the "boot paid" is the amount entered on Forms 7 and 9 (not the list price).

j. On capital items as machinery, purchased breeding livestock, etc., also enter the item on the depreciation schedule as Forms 12 or 14.

k. At the end of the month or the end of the page, an accuracy check can be made by totaling Columns 20 to 47 -

it should equal the total for the Total Cost Column.

l. If all entries for the month are on one page, transfer the totals to the Summary - Form 27. If more than one page is used, carry the totals forward to the next Form 7, etc.

m. Enterprise accounting of raised feed fed to livestock: If you need raised feed, once a month make an entry of the amount and kind of feed fed and the farm value on Form 10. The only entry on the other Expense forms should be on Form 7 under "date" and in the Description Column. No dollar amounts are entered on Forms 7-9.

Teaching procedures would entail distributing HO-10 with sample entries for enrollees to complete on the forms. Allow ample time for them to make the first entry. Then, with the use of an overhead projector and TM-5, TM-6, TM-7 and TM-8, illustrate how to make the first entry. Complete the rest of the entries by allowing enrollees time to make an entry, then follow with your example.

Examples of entries on receipt forms are as follows:

January 1 - Borrowed $11,200 from Greenline Implement Company for purchase of tractor. Paid $2,800 down.

FORM 7 **PAGE** 1 **19**

*

LINE	DATE	TOTAL COST $	TOTAL COST ¢	check no.	DETAILED DESCRIPTION WHAT WAS BOUGHT, FROM WHOM	MACH. & EQUIP. $	MACH. & EQUIP. ¢
					subtotals brought from preceeding page		
1	1	14000	-		Tractor - Greenline Imp.	1400	-

**Note: An entry for $11,200 was made as a receipt.*

January 10 - Bought 4,000# hog supplement from Zippo Feeds, cost $600, check.

FORM 7 **PAGE** **MONTH** Janua

LINE	DATE	TOTAL COST $	TOTAL COST ¢	check no.	DETAILED DESCRIPTION WHAT WAS BOUGHT, FROM WHOM	FEED lbs	FEED $	FEED ¢
					subtotals brought from preceeding page			
1	1	14000	-		Tractor - Greenline Imp.			
2	10	600	-	✓	Hog Supplement [illegible] Lot 3	4000	600	-

FORM 10 **PAGE** 1

Hogs - Lot 3

LINE	ITEM DESCRIPTION QUANTITY, ETC.	AMT. $	AMT. ¢
	subtotals brought from preceeding page		
1			
2	4000# Sup.	600	—

January 12 - Sent check to IRS for 1979 Social Security on Tom Jones for $52.

FORM 7 **PAGE** TH Janu

LINE	DATE	TOTAL COST $	¢	check no.	DETAILED DESCRIPTION WHAT WAS BOUGHT, FROM WHOM		TAXES $	¢
					subtotals brought from preceeding page			
1	1	14000	-		Tractor - Greenline Imp.			
2	10	600	-	✓	Hog Supplement [illegible] lot 3			
3	12	52	-	✓	IRS SS	*	52	-

*Note: *This was not enterprised because Tom Jones worked with several enterprises.*

January 15 - Bought 500 gallons diesel fuel from Skelly Oil Company, check for $550.

FORM 7 **PAGE** **MONTH** Janu **FORM 8**

LINE	DATE	TOTAL COST $	¢	check no.	DETAILED DESCRIPTION WHAT WAS BOUGHT, FROM WHOM	FEED lbs	FEED $	FEED ¢
					subtotals brought from preceeding page			
1	1	14000	-		Tractor - Greenline Imp.			
2	10	600	-	✓	Hog Supplement [illegible] lot 3	4000	600	-
3	12	52	-	✓	IRS SS			
4	15	550	-	✓	Diesel - Skelly Oil 500 gal			

LINE	CASH RENT $	¢	POWER FUEL, OIL GREASE $	¢
1				
2				
3				
4			550	-

January 18 - Made principal payment of $2,000 to FHA on Loan #4, check. Also made $3,000 principal payment on $93,000 real estate loan. Check.

FORM 7 **PAGE** **MONTH** Janu **EXPEN**

LINE	DATE	TOTAL COST $	¢	check no.	DETAILED DESCRIPTION WHAT WAS BOUGHT, FROM WHOM	FEED lbs	FEED $	FEED ¢		PRINCIPAL PAID ON BORR'WD FUNDS $	¢
					subtotals brought from preceeding page						
1	1	14000	-		Tractor - Greenline Imp.						
2	10	600	-	✓	Hog Supplement [illegible] lot 3	4000	600	-			
3	12	52	-	✓	IRS SS						
4	15	550	-	✓	Diesel - Skelly Oil 500 gal						
5	18	2000	-	✓	FHA Loan #4					2000	-
6	18	3000	-	✓	Real Estate Loan					3000	-

January 20 - Purchased 300# Duroc boar from Perry Farm for $500, check.

FORM 7 **PAGE** **MONTH** Janua **MONTH**

LINE	DATE	TOTAL COST $	¢	check no.	DETAILED DESCRIPTION WHAT WAS BOUGHT, FROM WHOM	FEED lbs	FEED $	FEED ¢	INVESTMENTS HEAD	LBS.	BREEDIN Hogs $	¢
					subtotals brought from preceeding page							
1	1	14000	-		Tractor - Greenline Imp.							
2	10	600	-	✓	Hog Supplement [illegible] Lot 3	4000	600	-				
3	12	52	-	✓	IRS SS							
4	15	550	-	✓	Diesel - Stanly Oil - 500 Gal							
5	18	2000	-	✓	FHA Loan #4							
6	18	3000	-	✓	Real Estate Loan							
7	20	500	-	✓	Duroc Boar - Perry				1	300	500	-

January 25 - Bought 100 feeder pigs from Sam's Farm, average weight 90# for $5,400, Lot 4, check.

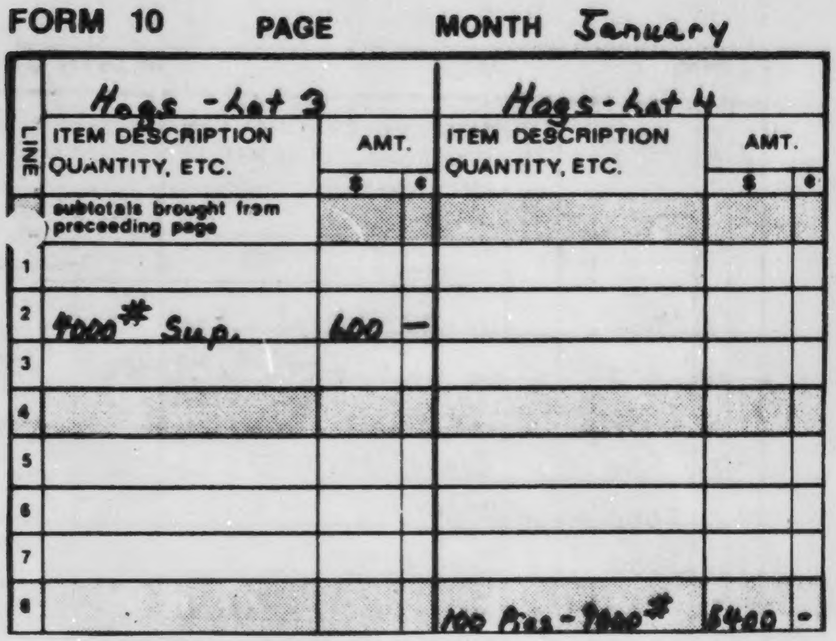
FORM 7 **PAGE** **MONTH** Janua

LINE	DATE	TOTAL COST $	¢	check no.	DETAILED DESCRIPTION WHAT WAS BOUGHT, FROM WHOM	FEED lbs	FEED $	FEED ¢
					subtotals brought from preceeding page			
1	1	14000	-		Tractor - Greenline Imp.			
2	10	600	-	✓	Hog Supplement [illegible] Lot 3	4000	600	-
3	12	52	-	✓	IRS SS			
4	15	550	-	✓	Diesel - Stanly Oil - 500 Gal			
5	18	2000	-	✓	FHA Loan #4			
6	18	3000	-	✓	Real Estate Loan			
7	20	500	-	✓	Duroc Boar - Perry			
8	25	5400	-	✓	Feeder Pigs - Sam's Lot 4			

FORM 9 **PAGE** **MONTH**

NEW INVESTM NON-BREEDING LIVESTOCK $	¢	$	¢	$	¢	HEAD	LBS.
5400						100	9000

(Continued at top of next page.)



FORM 10 **PAGE** **MONTH** January

LINE	Hogs - Lot 3			Hogs - Lot 4		
	ITEM DESCRIPTION QUANTITY, ETC.	AMT.		ITEM DESCRIPTION QUANTITY, ETC.	AMT.	
		$	¢		$	¢
	subtotals brought from preceeding page					
1						
2	4000# Sup.	600	—			
3						
4						
5						
6						
7						
8				100 Pigs - 9000#	5400	-

January 31 - Entered the amount and value of raised feed fed to hogs this month and the amount of hay fed to cattle. In this example, 9,200# or 164 bushels of corn were fed to the hogs in Lot 3 (valued at $2.20 for one bushel), 4,800# or 86 bushels of corn were fed to the hogs in Lot 4 and 775 bales of hay valued at $1.50 a bale (25 bales per day) were fed to the cattle. The value per bushel or bale used for raised feed should be the same figure used to determine the profit in raising corn or hay. Most often it is the same as used for inventory purposes January 1 which is the value if sold less the cost of marketing. The pounds or bushels of corn fed could be determined by estimating the amount put in the grinder-mixer or mix-mill each time a batch is ground. If the grain is hauled to an elevator for grinding, a weight ticket would be available. Many farmers would make an entry one time a year for the hay fed to cattle if an analysis was desired on the total cattle enterprise.

(See top of next page.)

FORM 7 **PAGE** **MONTH** Janu

LINE	DATE	TOTAL COST $	¢	check no.	DETAILED DESCRIPTION WHAT WAS BOUGHT, FROM WHOM	FEED lbs	FEED $	FEED ¢
					subtotals brought from preceeding page			
1	1	14000	-		Tractor - Greenline Imp.			
2	10	600	-	✓	Hog Supplement [illegible] Lot 3	4000	600	-
3	12	52	-	✓	IRS SS			
4	15	550	-	✓	Diesel - Skelly Oil - 500 [illegible]			
5	18	2000	-	✓	FHH Loan #4			
6	18	3000	-	✓	Real Estate Loan			
7	20	500	-	✓	Duroc Boar - Perry			
8	25	5400	-	✓	Feeder Pigs - Sam's Lot 4			
9	31				Raised Feed Fed			

FORM 8 TH

LINE	CASH RENT $	¢	POWER FUEL, OIL, GREASE $	¢	TAXES $	¢
2						
3					52	-
4			192	-		
5						
6						
7						
8						
9						

FORM 9 **PAGE** **MONTH** **1980 FARM EXPENDITURES**

NEW INVESTMENTS

NON-BREEDING LIVESTOCK Hogs $	¢	$	¢	$	¢	HEAD	LBS.	BREEDING STOCK Hogs $	¢	$	¢	MACH. & EQUIP. $	¢	LAND & BLDG. IMPRV'MT $	¢	PRINCIPAL PAID ON BORR'WD FUNDS $	¢	NON-FARM EXPEN., INVEST. $	¢	LINE
												1400	-							1
																2000	-			5
																3000	-			6
						1	300	500	-											7
5400	-					100	9000													8

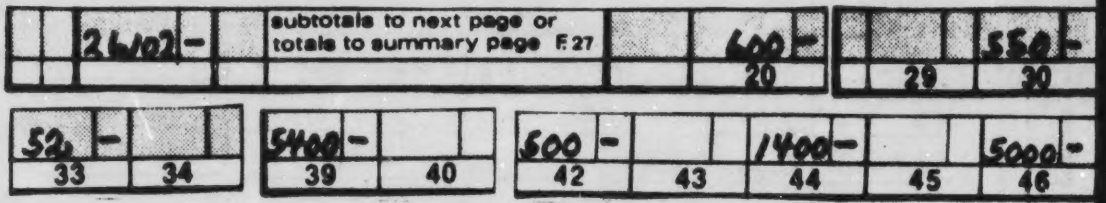
FORM 10 **PAGE** **MONTH** January **1980 DISTRIBUTIC**

LINE	Hogs - Lot 3 ITEM DESCRIPTION QUANTITY, ETC.	AMT. $	¢	Hogs - Lot 4 ITEM DESCRIPTION QUANTITY, ETC.	AMT. $	¢	Cattle ITEM DESCRIPTION QUANTITY, ETC.	AMT. $	¢
	subtotals brought from preceeding page								
1									
2	4000# Sup.	600	-						
8				100 Pigs - 9000#	5400	-			
9	9200# Corn	360	80	4800# corn	189	20	775 bales	1162	50

4. Complete an accuracy check for expenditures.

At the end of the month, each column (20-47) is totaled. A check for accuracy is done by adding the total in each column. Next, each column total should be added and compared to the total expenditure column.

The following illustrates an accuracy check for the example entries:



		26102	-		subtotals to next page or totals to summary page F.27		600	-
							20	

			550	-
	29		30	

520	-		
33		34	

5400	-		
39		40	

500	-			1400	-			5000	-
42		43		44		45		46	

5. Transferring monthly totals to cash flow summary.

A copy of HO-1 should be distributed to enrollees. It should be noted that line numbers on this form correspond with column numbers on Forms 2-10.

The primary reason for using a cash flow summary is for the purpose of planning. At the end of the year, these figures can be used for estimating needs for next year.

Teaching procedures would entail allowing enrollees time to complete this form with values from Forms 2-10 previously completed. Allow ample time for enrollees to complete their forms. With the use of an overhead projector and TM-9 and TM-10, illustrate how the entries should be made.

An example of entries on Form 27 (TM-9 and TM-10) are as follows:

(See top of next page.)

FORM 27 **CASH FL**

	LINE	JAN.
RECEIPTS		
Crop Sales Soybeans	1	1815
	2	
	3	
	4	
Gov't Payments	5	
Custom Work	6	
Dividends, Refunds, Resales	7	
Cash Rent, Other Farm	8	50
Non-Brdg Livestock Sales Hogs	9	13920
Cattle	10	6720
	11	
Livestock Products	12	
	13	
OPERATING SALES TOTAL (add lines 1 through 13)	A	22505
Breeding Livestock Sales Hogs	14	2323.75
Cows	15	1052
	16	
Mach., Equip., Bldgs. Sold	17	
CAPITAL SALES TOTAL (add lines 14 through 17)	B	3375.75
TOTAL FARM RECEIPTS (line A plus B)	C	25880.75
MONEY BORROWED summary only	18	11200
NON-FARM RECEIPTS	19	
TOTAL DOLLARS AVAILABLE	D	37080.75
EXPENDITURES		
Feed	20	600
Vet., Med	21	
Breeding Fees, Registr.	22	
Fertilizer, Lime	23	
Crop Chemicals	24	
Seeds, Crop Supplies	25	
Machinery Repair, Maint.	26	
Building, Fence Repair	27	
Machinery, Truck Hire	28	

*

Cash Rent	29	
Power Fuel, Oil, Grease	30	550
Hired Labor	31	
Insurance	32	
Taxes	33	52
Utilities	34	
Truck Expenses	35	
uto Expenses	36	
Misc. Farm Expenses	37	
Interest (existing obligations)	38	
Non-Breeding Livestock Hogs	39	5400
	40	
	41	
OPERATING EXPEND. TOTAL (add lines 20 through 41)	E	6602
Breeding Stock Purchases Hogs	42	500
	43	
Mach. and Equip. Purchases	44	14000
Land and Bldg. Imprvm'ts	45	
CAPITAL EXPENSES TOTAL (add lines 42 through 45)	F	14500
OTAL FARM EXPENSES (line E plus F)	G	21102
PRINCIPAL PAID existing obligations	46	5000
NON-FARM EXP. AND INVEST.	47	
FAMILY LIVING	FL	
TOTAL DOLLARS USED (add lines G through FL)	H	26102
CASH DIFFERENCE FOR MONTH (line D minus H)	I	10978.75
CASH BALANCE BEGINNING OF MONTH (line N last month)	J	2400
CASH AVAILABLE BEFORE BORROWING (line J±I)	K	13378.75
SHORT-TERM LOAN PROCEEDS (if line K is negative)	L	—
ORT-TERM LOAN REPAYMENTS (if line K is positive)	M	9000
CASH BALANCE END OF MO. (line K plus L minus M)	N	4378.75
SHORT-TERM CREDIT BALANCE line O last month plus L minus M	O	5494
		JAN.

**In the previous example, the farmer had $2,400 in the bank at the beginning of the month. This value was entered on Line J. The entry on Line K should be the same as the bank balance before the farmer uses $9,000 to pay part of a short-term loan totaling $12,950. At the end of the month, his cash balance is $4,378.75. If this does not agree with his checkbook, then there is either an error or not all of the entries were made.*

F. Group Discussion

Sufficient time should be alloted for enrollees to ask questions and discuss other types of entries not illustrated. Many of them may want to make comparisons between the Missouri Young Farmer Record Book and one which they have been using or are familiar with. Be sure that the discussion period enables farmers to be sure that they are knowledgeable of how to use the receipt, expenditure, and Cash Flow Summary Forms.

Administer the accompanying quiz to ascertain the level of knowledge in the area of recording receipts and expenditures.

G. Conclusions

Conclusions which may be reached include:

1. Receipt and expenditure sections are double entry format.
2. Flexibility is provided for enterprise records.
3. Capital expenditures are not enterprised since they are not easily identifiable unless the farming operation is highly specialized.
4. The record book is designed to agree with your checkbook.
5. The record book is a good place to begin planning.
6.
7.
8.

H. Announcements

Next meeting, we will be working with cash flow.

I. Social

J. On the Farm Instruction

When visiting enrollees following this lesson, be sure that his receipts, expenditures and cash flow summary are current for this month. If records are not current, use your time in assisting him in completing them. It is essential that the enrollee begins his record keeping correctly.

FORM 2 PAGE MONTH 19__ FARM RECEIPTS

LINE	DATE	TOTAL RECEIPTS		DETAILED DESCRIPTION to whom, what, etc.	AMT.: tons lbs. bu.	CROP SALES								MISC. FARM RECEIPTS								
						KIND: write in below								Gov't Paym'ts		Custom Work		Pat. Div., Refunds, Resales		Cash Rent, Other		
		$	¢			$	¢	$	¢	$	¢	$	¢	$	¢	$	¢	$	¢	$	¢	
				subtotals brought from preceding page																		
1																						
2																						2
3																						3
4																						4
5																						5
6																						6
7																						7
8																						8
9																						9
10																						
11																						11
12																						12
13																						13
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15																						15
16																						16
17																						17
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FORM 3 **PAGE** **MONTH** **19__ FARM RECEIPTS**

LINE	NON-BREEDING LIVESTOCK															LIVESTOCK PROD'TS				
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BREEDING LIVESTOCK													Mach., Equip., Bldg. Sales		Money Borrow-ed		Non-farm Receipts		LINE
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Qualify		Do Not Qualify																	
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FORM 5 PAGE MONTH 19__ DISTRIBUTION OF ENTERPRISE RECEIPTS

LINE	ITEM DESCRIPTION, QUANTITY, ETC.	AMT.		ITEM DESCRIPTION, QUANTITY, ETC.	AMT.		ITEM DESCRIPTION, QUANTITY, ETC.	AMT.		ITEM DSCRPT QUANTITY, ETC.	AMT.		ITEM DSCRPT QUANTITY, ETC.	AMT.		LINE
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HO-5

Sample Receipts

January 1 - Borrowed $11,200 from Greenline Implement Company for purchase of tractor. Paid $2,800 down.

January 3 - Sold 300 bushels of soybeans to J. B. Grain Buying for $1,815.

January 4 - Sold 24 steers weighing 9,600# for $6,720 on the Marshall Sale Circuit.

January 9 - Sold junk car to Junk City, U.S. A. for $150. Car is not on depreciation schedule.

January 15 - Sold 20 old sows on Marshall Sale Circuit. Total weight 10,000#, sold for $2,200. These sows are on depreciation schedule, 8/1/77.

January 20 - Sold to 4-Square Market three cows, on depreciation schedule, purchased 4/7/72. They weighed 2,550# and brought $1,052.

January 25 - Sold 200 head of market hogs to 4-Square Market. Average weight was 232#. Eighty head were bought in November. The check received was for $14,043.75. However, this included an old boar for $123.75 purchased 5/6/78, weight was 550#.

PAGE MONTH 19__ FARM EXPENDITURES

DATE	TOTAL COST		check no.	DETAILED DESCRIPTION WHAT WAS BOUGHT, FROM WHOM	FEED			VET., MED.		BREED. FEES, REGIS.		FERT., LIME		CROP CHEM.		SEEDS, CROP SUPPLIES		MACH. REPAIR MAINT.		BLDG., FENCE REPAIR		MACH., TRUCK HIRE		LINE
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HO-6

FORM 6 PAGE MONTH 19__ FARM EXPENDITURES

LINE	CASH RENT		POWER FUEL,OIL, GREASE		HIRED LABOR		INSUR.		TAXES		UTIL.		TRUCK EXPEN.		AUTO EXPEN.		MISC. FARM EXPEN.		INTER'ST	
	$	¢	$	¢	$	¢	$	¢	$	¢	$	¢	$	¢	$	¢	$	¢	$	¢
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FORM 9 PAGE MONTH 19__ FARM EXPENDITURES

NEW INVESTMENTS																		PRINCIPAL PAID ON BORR'WD FUNDS		LINE
NON-BREEDING LIVESTOCK						HEAD	LBS.	BREEDING STOCK				MACH. & EQUIP.		LAND & BLDG. IMPRV'MT		NON-FARM EXPEN., INVEST.				
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HO-8

FORM 10 PAGE MONTH 19__ DISTRIBUTION OF ENTERPRISE EXPENDITURES

LINE	ITEM DESCRIPTION QUANTITY, ETC.	AMT.		ITEM DESCRIPTION QUANTITY, ETC.	AMT.		ITEM DESCRIPTION QUANTITY, ETC.	AMT.		ITEM DSRPT. QUANTITY, ETC.	AMT.		ITEM DSRPT. QUANTITY, ETC.	AMT.		LINE
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HO-9

HO-10

Sample Expenditures

January 1 - Borrowed $11,200 from Greenline Implement Company for purchase of tractor. Paid $2,800 down.

January 10 - Bought 4,000# hog supplement from Zippo Feeds, cost $600, check.

January 12 - Sent check to IRS for 1979 Social Security on Tom Jones for $52.

January 15 - Bought 500 gallons diesel fuel from Skelly Oil Company, check for $550.

January 18 - Made principal payment of $2,000 to FHA on Loan #4, check. Also made $3,000 principal payment on $93,000 real estate loan. Check.

January 20 - Purchased 300# Duroc boar from Perry Farm for $500, check.

January 25 - Bought 100 feeder pigs from Sam's Farm, average weight 90# for $5,400. (Lot 4), check.

January 31 - Entered the amount and value of raised feed fed to hogs this month and the amount of hay fed to cattle. In this example, 9,200# or 164 bushels of corn were fed to the hogs in Lot #3 (valued at $2.20 for one bushel), 4,800# or 86 bushels of corn were fed to the hogs in Lot #4, and 775 bales of hay valued at 50¢ a bale (25 bales per day) were fed to the cattle. The value per bushel or bale used for raised feed should be the same figure used to determine the profit in raising corn or hay. Most often it is the same as used for inventory purposes January 1, which is the value if sold less the cost of marketing. The pounds or bushels of corn fed could be determined by estimating the amount put in the grinder-mixer or mix-mill each time a batch is ground. If the grain is hauled to an elevator for grinding, a weight ticket would be available. Many farmers would make an entry one time a year for the hay fed to cattle if an analysis was desired on the total cattle enterprise.

ORM 2 PAGE MONTH 19__ FARM RECEIPTS

LINE	DATE	TOTAL RECEIPTS		DETAILED DESCRIPTION	CROP SALES									MISC. FARM RECEIPTS								
				to whom, what, etc.	AMT.: tons lbs. bu.	KIND: write in below								Gov't Paym'ts		Custom Work		Pat. Div., Refunds, Resales		Cash Rent, Other		
		$	¢			$	¢	$	¢	$	¢	$	¢	$	¢	$	¢	$	¢	$	¢	
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TM-1

PAGE MONTH 19__ FARM RECEIPTS

LINE	NON-BREEDING LIVESTOCK															LIVESTOCK PROD'TS				
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BREEDING LIVESTOCK													Mach., Equip., Bldg. Sales		Money Borrow-ed		Non-farm Receipts		LINE
HEAD				KIND: write in below															
Qualify		Do Not Qualify																	
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TM-3

FORM 3 PAGE MONTH 19__ DISTRIBUTION OF ENTERPRISE RECEIPTS

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PAGE MONTH 19__ FARM EXPENDITURES

LINE	DATE	TOTAL COST		check no.	DETAILED DESCRIPTION WHAT WAS BOUGHT, FROM WHOM	FEED			VET., MED.		BREED. FEES, REGIS.		FERT., LIME		CROP CHEM.		SEEDS, CROP SUPPLIES		MACH. REPAIR MAINT.		BLDG., FENCE REPAIR		MACH., TRUCK HIRE		LINE
		$	¢			lbs	$	¢	$	¢	$	¢	$	¢	$	¢	$	¢	$	¢	$	¢	$	¢	
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TM-5

FORM 10 PAGE MONTH 19__ DISTRIBUTION OF ENTERPRISE EXPENDITURES

LINE	ITEM DESCRIPTION QUANTITY, ETC.	AMT.		ITEM DESCRIPTION QUANTITY, ETC.	AMT.		ITEM DESCRIPTION QUANTITY, ETC.	AMT.		ITEM DSRPT. QUANTITY, ETC.	AMT.		ITEM DSRPT. QUANTITY, ETC.	AMT.		LINE
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TM-6

FORM 9 [redacted] PAGE [redacted] MONTH [redacted] 19 [redacted] FARM EXPENDITURES [redacted]

NEW INVESTMENTS																				
NON-BREEDING LIVESTOCK						HEAD	LBS.	BREEDING STOCK				MACH. & EQUIP.		LAND & BLDG. IMPRVMT		PRINCIPAL PAID ON BORR'WD FUNDS		NON-FARM EXPEN., INVEST.		LINE
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TM-7

FORM 6 PAGE MONTH 19__ FARM EXPENDITURES

LINE	CASH RENT		POWER FUEL,OIL GREASE		HIRED LABOR		INSUR.		TAXES		UTIL.		TRUCK EXPEN.		AUTO EXPEN.		MISC. FARM EXPEN.		INTER'ST	
	$	¢	$	¢	$	¢	$	¢	$	¢	$	¢	$	¢	$	¢	$	¢	$	¢
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FORM 27 CASH FLOW INANCIAL PLAN OR SUMMARY

	LINE	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG	SEPT.	OCT.	NOV.	DEC.	TOTAL
RECEIPTS														
Crop Sales	1													
	2													
	3													
	4													
Gov't Payments	5													
Custom Work	6													
Dividends, Refunds, Resales	7													
Cash Rent, Other Farm	8													
Non-Brdg Livestock Sales	9													
	10													
	11													
Livestock Products	12													
	13													
OPERATING SALES TOTAL (add lines 1 through 13)	A													
Breeding Livestock Sales	14													
	15													
	16													
Mach., Equip., Bldgs. Sold	17													
CAPITAL SALES TOTAL (add lines 14 through 17)	B													
TOTAL FARM RECEIPTS (line A plus B)	C													
MONEY BORROWED summary only	18													
NON-FARM RECEIPTS	19													
TOTAL DOLLARS AVAILABLE	D													
EXPENDITURES														
Feed	20													
Vet., Med	21													
Breeding Fees, Registr.	22													
Fertilizer, Lime	23													
Crop Chemicals	24													
Seeds, Crop Supplies	25													
Machinery Repair, Maint.	26													
Building, Fence Repair	27													
Machinery, Truck Hire	28													

TM-9

		JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	TOTAL
Hired Labor	31													
Insurance	32													
Taxes	33													
Utilities	34													
Truck Expenses	35													
uto Expenses	36													
Misc. Farm Expenses	37													
Interest (existing obligations)	38													
Non-Breeding Livestock	39													
	40													
	41													
OPERATING EXPEND. TOTAL (add lines 20 through 41)	E													
Breeding Stock Purchases	42													
	43													
Mach. and Equip. Purchases	44													
Land and Bldg. Imprvm'ts	45													
CAPITAL EXPENSES TOTAL (add lines 42 through 45)	F													
OTAL FARM EXPENSES (line E plus F)	G													
PRINCIPAL PAID existing obligations	46													
NON-FARM EXP. AND INVEST.	47													
FAMILY LIVING	FL													
TOTAL DOLLARS USED (add lines G through FL)	H													
		▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨
CASH DIFFERENCE FOR MONTH (line D minus H)	I													
CASH BALANCE BEGINNING OF MONTH (line N last month)	J													
CASH AVAILABLE BEFORE BORROWING (line J±I)	K													
SHORT-TERM LOAN PROCEEDS (if line K is negative)	L													
ORT-TERM LOAN REPAYMENTS (f line K is positive)	M													
CASH BALANCE END OF MO. (line K plus L minus M)	N													
SHORT-TERM CREDIT BALANCE line O last month plus L minus M	O													

Farm Business Management

and Analysis Program

Lesson 3 - Quiz

Listed below are a number of receipts and expenditures. In the blank preceeding the item, write the letter from the answer list indicating where the item would be entered in the record book.

_____ 1. Hail insurance premium on soybeans.

_____ 2. Farm postage.

_____ 3. Income from custom combining.

_____ 4. Truck insurance premium.

_____ 5. Posts for fence repair.

_____ 6. Attorney's fee for abstract work.

_____ 7. Points and condensor for tractor.

_____ 8. Expense for hiring corn combined.

_____ 9. Enrollment for FBMA program.

_____ 10. Dirt fill purchased for new building.

_____ 11. Income from hail insurance on soybeans.

_____ 12. Tune up for truck.

_____ 13. Soybeans sold.

_____ 14. Interest on mortgage loan.

_____ 15. Oil for tractor.

_____ 16. Socket wrench set for farm.

_____ 17. Farm magazine subscription.

_____ 18. Insemination fee.

_____ 19. Hog wormer.

_____ 20. Sale of plow.

_____ 21. Lasso for soybeans.

_____ 22. Vitamin premix for livestock feed.

______ 23. Window repair on barn.

______ 24. Seed corn purchased.

______ 25. Registration fees on livestock.

______ 26. L.P. gas for crop drying.

______ 27. Veterinary bill on livestock.

______ 28. Anhydrous for corn.

______ 29. Purchase of wheel for tractor.

______ 30. Feeder pigs purchased.

______ 31. Straw purchased for bedding.

______ 32. Gravel for driveway.

______ 33. Gasoline for farm.

______ 34. Feeder steers sold.

______ 35. Cash rent for land.

______ 36. Trucking bill for hauling corn.

______ 37. Storage payments for grain.

______ 38. Sale of sows.

______ 39. Repair of hog feeder.

______ 40. Two tons of complete sow pellets.

______ 41. Check from Milk Cooperative.

______ 42. Money from PCA loan.

______ 43. Lime for pasture.

______ 44. Twenty old cows sold.

______ 45. Check from MFA Patronage Refund.

Answer List

Receipts

A - Crop Sales
B - Government Payments
C - Custom Work
D - Patronage Divident, Refunds, Resales
E - Cash Rent, Other
F - Non-Breeding Livestock
G - Livestock Products
H - Breeding Livestock
I - Machinery Equipment and Building Sales
J - Money Borrowed
K - Non-Farm Receipts

Expenditures

L - Feed
M - Veterinary, Medicine
N - Breeding Fees, Registration
O - Fertilizer, Lime
P - Crop Chemicals
Q - Seeds, Crop Supplies
R - Machinery Repair, Maintenance
S - Building, Fence Repair
T - Machinery, Truck Hire
U - Cash Rent
V - Power, Fuel, Oil, Grease
W - Hired Labor
X - Insurance
Y - Taxes
Z - Utilities
AA - Truck Expense
BB - Auto Expense
CC - Miscellaneous
DD - Interest
EE - Non-Breeding Livestock
FF - Breeding Stock
GG - Machinery and Equipment
HH - Land and Building Improvement
II - Non-Farm Expense, Investment

UNIT I: Establishing A Farm Accounting System

Lesson 4: Planning the Year's Cash Flow

A. Review

The previous lesson, Recording Receipts and Expenditures, should be reviewed. List highlights on the board of conclusions and of key items that caused problems during on-farm instruction. Also, this is a good time to discuss problems enrollees had in recording their own receipts and expenditures.

1. Receipt and Expenditure entries are made two times--plus Forms 5 or 10 for enterprise items.
2. Expenditures on Forms 8 and 9 are not carried to Form 10 since it is difficult to assign them to an enterprise.
3. Weight and numbers of livestock sold and purchased need to be recorded.
4. An accuracy check should be made at the end of each month.
5. Totals for each column should be transferred to the same line number on Form 27.
6. Line K on Form 27 should be compared with the checkbook balance as an accuracy check.
7.
8.

B. Objective

To develop a planned cash flow for their farm business.

C. Motivation

Start the discussion by asking what they think is the average amount of money older established farmers have invested (maybe not true of this group because of age, years farming, etc.)--list a few of the guesses on the board. Ask what they think this figure was five years ago--ten years ago? Ask what about sales from this size business?

Next, show TM-1. Point out this is from the UMC Mail-In Record Program and includes older established farmers. Discuss the implications of risk in handling such a large investment and flow of funds during the year. Point out that these are state wide averages. Illustrate "risk" by an example similar to the following: If in 1978 the average farmer owned 40 percent of the total capital, about $185,000 would be owed. Interest at 10 percent would be $18,500; at 15 percent it would be $27,750. A slippage of 10 percent in sales due to lower prices, drought, etc., without a corresponding decrease in expenditures would eliminate close to 80 percent of the cost of the year's interest.

The problem becomes--"What can we do to keep control of the farm business we operate?" One tool, obviously, is a Cash Flow Plan.

Ask the class if any of the places they borrow money require a cash flow (probably all lending agencies do, but may call it a repayment schedule and the lender may help the farmer complete it). (If any borrow from FmHA, it is called a Farm and Home Plan.) Do any of you have problems with not having income at the same time as an expense or bill is due--or, wondering if there will be enough left over for family living--or, to pay a note coming due?

D. Key Points

List these on the board as suggested by the class or use TM-2 and point out this is what we'll attempt to do tonight.

1. Reasons for a cash flow.

2. Steps in planning a cash flow.

3. Completing the cash flow form.

4. Adjusting the tentative planned cash flow.

E. Introduction of Information

Start the introduction of information by mentioning that we will discuss the points first and then work some problems.

1. *Reasons for a planned cash flow.*

   Use TM-3 with following points to start discussion--let them add to list or give examples.

   a. Lets one know if, where, and how much credit will be needed. Someone said that in the short run, credit people are more interested in cash flows than profitability. They want to be sure they get their money back. And, for many farmers in 1980, an adequate cash flow meant the difference between staying in business or having to reduce or sell out. Credit people like a well-planned cash flow because it eliminates "surprises" of the farmer needing an extra $10,000 after the credit person thought the loan was as large as it should be.

b. Lets a farmer "test" the year's plan on paper. If a plan won't show a profit or desired cash flow on paper, it probably won't in actual practice. Many times after doing a planned cash flow, it is obvious that some decisions need to be made: Should more beans and less corn be planted? Should pigs be sold as feeder pigs rather than fed out? Should prices be "locked-in" through a forward contract or by hedging? etc.

c. Often results in lower interest rates and costs--better credit service. Some banks and PCAs have lower interest rates for customers that do a good job of cash flow planning and who can arrange their credit needs well in advance of the time needed. (It saves the credit persons time and effort.) Also, since most farm loans change interest only on unpaid balance, the total interest is often less with a planned cash flow because principal may be paid faster--even though it may be necessary to reborrow in 30 or 60 days.

d. Lets a manager develop a sound financial plan--less impluse buying and selling. This may be one of the most profitable advantages of a cash flow plan.

e. Helps in tax planning. A cash flow can help "even" out income from year to year and result in lower taxes to be paid.

2. *Steps in planning a cash flow.*

Use an actual local example (preferably a class member's with prior approval) or the example on HO-1 can be used to let class members work through the steps in planning a cash flow in class. (The example on HO-1 is an actual situation in 1980 of a young couple just starting full-time farming in central Missouri and could be used for the class problem. → HO2 is this example worked out.

a. Step 1--Let the individual explain their cropping and livestock plan as is done on the handout. This information could be written on the board and necessary questions asked to get other needed information as shown in HO-1. Manual 75, Missouri Farm Planning Handbook is a source of information on quantities of different enterprises. Expected prices for the coming year must be used.

b. Step 2--Let the individual identify these other costs and expenditures and also list them on the board.

c. Step 3--Use HO-4 and let each couple complete for their family. At this point, run the SSPEND program on the UMC-RCP if a remote terminal is available. ([illegible] Use the amount they are planning for family living each month and 12 monthly pay periods for the income part. Use one couple's estimates for expenses--this will give them a comparison with "typical" families of their size and income. (HO-4 [illegible]

To complete Step 3, use the figure for family living from the family providing information for Steps 1 and 2, or if using the HO-1 example, insert $833/month.

3. *Completing the cash flow form.*

Provide a copy of Form 27 for each couple and have a transparency of it on the overhead. Let the class members provide information to write on the transparency. Complete the form and discuss.

4. *Adjusting the tentative planned cash flow.*

Let class members identify some adjustments to consider and show how these might be made. If the planned cash flow is providing adequate cash on the first trial, a farmer will frequently say, "I really need to trade plows (or pickup, or balers, etc.) in April--what would that do to the cash flow." Or, the family may want to plan a vacation in July or buy a piano in August. On the other hand, if the cash flow is inadequate, some decisions need to be made now. Can a planned capital purchase be delayed? Could a shift be made in some enterprises or are there some expenditures included as for feeder calves that won't be sold until the next year? If so, maybe adequate credit is the only need.

F. Group Discussion and Activity

Let the class discuss advantages and disadvantages of completing a cash flow, some of the problems in getting it done, and ideas on how to use it effectively. Be sure and include discussion on factors that will influence the cash flow for this year compared to last year; e.g., changes in crop or livestock prices, input costs, etc. If possible, having a local credit person discuss the importance and value of a cash flow at this point would be ideal.

G. Summary/Conclusion

Conclusions that might be listed:

1. A cash flow plan should increase our profits because of better planning, lower credit costs, and more effective tax planning.

2. The steps in planning are:
    a. Identifying crop and livestock plans.
    b. Identifying other costs and returns.
    c. Identifying family living estimates.
    d. Complete the form.
    e. Make adjustments.
3.
4.

Announcements

Social Activities

On-Farm Instruction

1. Ask each couple to complete Steps 1, 2, and 3 prior to your visit each month. Then, you can review this information and assist in completing it prior to filling out the form. You will need Manual 75, some extra Form 27s, an adding machine with tape, some outlook information, and the farmer's 1040F or records from the prior year. Also, review the farm and family goals prior to the visit in order to help direct planning to reach their goals.
2. Helping the individual farmer with needed adjustments is the most important and critical instruction with this lesson.
3. It would be desirable to visit with local credit people and discuss this activity with them in order to have a "feel" for local policies and to receive their support.

References:

The following references and/or materials should be available at the start of class:

1. Manual 75--Missouri Farm Planning Handbook.
2. Transparencies TM- to TM- in this lesson.
3. Form 27--Cash Flow--two copies per enrollee.
4. Adequate copies of handouts.

INVESTMENT TRENDS AND FARM PRODUCTION[1]

YEAR	OPERATOR AND BORROWED CAPITAL[2]	VALUE OF FARM PRODUCTION[3]
1978	461,600	147,300
1977	415,614	113,479
1976	374,768	96,055
1975	337,220	92,292
1974	306,205	82,158
1973	262,611	111,833
1972	209,581	77,179
1971	185,189	57,423
1970	181,754	43,348
1969	169,159	48,474

[1] UMC MAIL-IN RECORD FARMS (ABOUT 370 FARMS).

[2] TOTAL INVESTMENT BY OPERATOR INCLUDING MONEY BORROWED - DOES NOT INCLUDE VALUE OF RENTED AND LEASED PROPERTY.

[3] SALES MINUS PURCHASED FEED AND PURCHASED LIVESTOCK.

TM-2

LESSON 4--POINTS OF DISCUSSION

1. REASONS FOR A CASH FLOW
2. STEPS IN PLANNING A CASH FLOW
    - A. PLAN CROP AND LIVESTOCK PROGRAM
    - B. ESTIMATE REPAIRS, OVERHEAD COSTS, AND PURCHASE/SALE OF CAPITAL ITEMS
    - C. ESTIMATE FAMILY AND "OFF-FARM" INCOME
3. COMPLETING THE CASH FLOW FORM
4. ADJUSTING THE TENTATIVE PLANNED CASH FLOW

TM- 3

REASONS FOR A CASH FLOW

1. DETERMINE CREDIT NEEDS
2. "TEST" IDEAS
3. LOWER CREDIT COSTS
4. SOUND FINANCIAL PLAN
5. TAX PLANNING

TM- [illegible]

STEPS IN PLANNING A CASH FLOW

1. PLAN YOUR CROPPING AND LIVESTOCK PROGRAMS:
    - A. NUMBER OF ACRES OF EACH CROP, CASH EXPENSES, AND CASH RECEIPTS
    - B. NUMBER OF EACH LIVESTOCK, CASH EXPENSES, AND CASH RECEIPTS
    - C. NOTE MONTH EACH OF THESE WILL OCCUR (USE PAST YEAR'S RECORDS IF POSSIBLE)

2. ESTIMATE REPAIRS, OTHER OVERHEAD COSTS, ANY NEW INVESTMENTS, SALE OF A CAPITAL ITEM; DOLLARS FOR EACH; AND MONTH.

3. ESTIMATE FAMILY LIVING EXPENDITURES AND "OFF-FARM" INCOME.

4. COMPLETE CASH FLOW FORM INCLUDING NEEDED CREDIT.

5. MAKE ADJUSTMENTS AS DESIRED.

HO- 1

Example Cash Flow Planning

(This example is for a young couple starting to farm in 1980 and is as of January. They own 160 acres and have a financial statement on January 1 as on HO- .)

STEP 1--Plan Livestock and Cropping Program.

1. Livestock:

   a. Plans to buy about 100 head of 250-280# heifer calves in October-December each year; grow them with about 3# grain mix/day plus free choice hay until grass; graze on grass only until about the middle or last of July and then add about 4-6# grain mix per day until September and sell weighing about 650#. Estimated cost for the quality calf usually bought is 82¢/lb. and estimated sale price is 76¢/lb. (8¢ under feeder cattle futures price). Has been having about 4% death loss.

   ### Cash Expenses

   265# @ 82¢ = $218 x 100 head = $21,800 or $7,267 in each of October, November, December (uses 3# grain mix per day for 150 days, November 1-April 1) and 5#/day for 30 days or total of 600#/head or 60,000# total. Of this, about 12½% or 7,500# is 32% cattle supplement costing about $8.00/cwt. or $600 plus $200 for grinding and medication. Twenty-five percent of this is fed in August ($200); balance ($600) November 1-April 1; about 1000 bu. milo will be used but added to hog needs. Enough hay and pasture is raised.

   Sell 94 head in September @ 650# @ 76¢ = $46,436 (rounded to $40,000 to be conservative and allow for commission, trucking, etc.).

   b. Hogs: Has 60 sows raising market hogs and farrows in three groups of 20 each in February, April, June, August, October and December. Has been weaning about 130-150 pigs per group. Usually sells about 90 in February, April, June, August, October, and December and about 50 in each of the other months. Plans to sell at 225# and based on UMC Ag. Econ. outlook information and futures prices, plans on $37 the first quarter and $39 the fourth quarter. Figures any cull sows sold will at least equal the value of the replacement gilt. Total feed used is about 220 bu. milo, 2,500# hog supplement, and 500# creep feed per sow per year or 13,200 bu. milo, 75 tons hog supplement, and 15 tons creep feed. Grain is stored, processed, and delivered by a local elevator and costs about

25¢/cwt. or $1,800 per year. Milo is usually purchased at harvest at about $3.50/cwt. or $2/bu. Hog supplement figured at $300/ton and creep feed @ $200/ton.

2. Crops:

(Plans 26 acres milo, 14 acres of alfalfa and brome, 13 acres fescue and red clover, 14 acres wheat, 14 acres red clover, 40 acres improved pasture and 39 acres hog pasture, lots, timber, farmstead and waste land.)

   a. 26 acres milo--figures yield of 75 bu./acre--all used as feed (needs 13,200 bu. for hogs, 1,000 bu. for cattle, produces about 2,000 bu.; will need to buy about 12,000 bu. in October @ $2/bu.). Plans a fertilizer cost of about $35/acre or $910. Seed $3/acre or $78, chemical $5/acre or $130, all in June.

   b. The 81 acres of hay and pasture ground will be top dressed with about $25/acre of fertilizer--pay for it in December each year--$2,025.

   c. Wheat--Plan about 35 bu. yield @ $3.50 in June or $1,715. Use own seed--starter fertilizer of $20/acre or $280 in October and $15/acre or $210 for nitrogen in February. Also, about 125# red clover seed in February @ 90¢/lb. or $113.

   d. About $2,000 custom hay baling for a neighbor is done each July and about $3,000 from combining fescue seed is received in June.

STEP 2

Other overhead costs were obtained from last year's records or estimated and included:

Vet. Med. = average about $50/month
Machinery Repair = about $50/month
Building Repair = about $75/month
Fuel = about $150/month in January, February, March, October, November and December and $250/month the other months
Insurance = $420 in April and $220 in September
Taxes = property taxes--$530 in December
Utilities = $150/month
Truck Expense = fuel is in fuel line; other costs $50/month
Miscellaneous = $100/month
Interest = $1200 in February, $5,500 in December
New Investments = new fence and portable sow shelters (fence--$800 in March, shelters--$1,200 in October)
Principal Due = $2,000 in February; $3,000 in December (Current is repaid as available.)

STEP 3

Their goal, after reviewing last year's records and some family budgets, is to keep family living under $10,000. Their estimates are as follows:

Food	= $ 2,000	Education	= $ 500
Clothing	= 800	Medicine	= 200
Household	= 750	Medical and Life Insurance	= 1,000
House Expenses	= 500	Church and Charity	= 600
Personal Items	= 1,000	Gifts	= 200
Recreation	= 600	Income Taxes and Social Security	= 1,000
Miscellaneous	= 850		

TOTAL = $10,000

They also ran the SSPEND program on the Remote Computer Planning Terminal to compare with "typical" families and received the following printout:

```
    COMPARATIVE MONTHLY BUDGET ANALYSIS
-------------------------------------------------------------
                          YOUR BUDGET     COMPARATIVE BUDGET
       ITEM            DOLLARS PERCENT    DOLLARS  PERCENT
-------------------------------------------------------------

 TAKE HOME PAY          833.00            833.00

 EXPENSES
    FOOD                167.00  20.05      96.00    11.52
    RENT OR MORTGAGE      0.0    0.0        0.0      0.0
    UTILITIES            40.00   4.80      34.00     4.08
    CAR PAYMENT           0.0    0.0      150.00    18.01
    GAS AND OIL          45.00   5.40      45.00     5.40
    CAR UPKEEP           25.00   3.00      25.00     3.00
    CAR INSURANCE        15.00   1.80      15.00     1.80
    OTHER DEBTS           0.0    0.0       83.30    10.00
    CLOTHING             70.00   8.40      70.00     8.40
    LIFE INSURANCE       10.00   1.20      10.00     1.20
    DOCTOR & MEDICAL     30.00   3.60      30.00     3.60
    FURNISH & EQUIP      21.59   2.59      35.10     4.21
    GENERAL SUPPLIES     21.59   2.59      35.00     4.20
    EDUCATION            21.59   2.59      23.00     2.76
    GIFTS-CONTRIBUTN     43.17   5.18      70.19     8.43
    RECREATION           43.17   5.18      70.19     8.43
    PERSONAL             21.59   2.59      35.10     4.21
    SAVINGS & INVEST    258.31  31.01       6.12     0.73
    OTHER EXPENSES        0.0    0.0        0.0      0.0
 TOTALS                 833.00 100.00     833.00   100.00
```

110' Cont'd

As a result, they decided to include $833 each month as family living. They had no off-farm income.

STEP 4

They completed Form 27--Cash Flow as shown on HO- . Explanations follow:

1. Wrote "cattle" on line 40 and entered $7,267 in October, November, and December.

2. Wrote "cattle" on line 10 and entered $40,000 in September.

3. Wrote "hogs" on line 11 and entered $4,163 in January (50 head x 224# x 37¢); $7,493 in February (90 head x 225# x 37¢); etc.

4. Determined feed expense for line 20 by:

   a. 12,000 bu. milo in October 2 $2/bu. or $24,000.

   b. cattle supplement $600 in August; $120/month November-April 1.

   c. hog supplement--75 tons @ $300 = $22,500; $1,800 storage, grinding, delivery charge; and 15 tons creep feed @ $200 = $3,000 or total of $27,300. $27,300 ÷ 12 = $2,275 monthly feed bill for hogs.

   d. total feed: January-March = $120 + $2,275 = $2,395 (rounded to $2,400); April-August = $2,275; August--$600 + $2,275 = $2,875; September = $2,275; October--$2,275 + $24,000 = $26,275; November and December--$2,275 + 120 = $2,400.

5. Entered milo fertilizer, seed, and chemical expense.

6. Entered pasture and hay fertilizer on line 23 in December.

7. Entered sale of wheat--line 1--June.

8. Entered wheat expense on lines 23 and 25.

9. Entered custom work (line 6) and sale of fescue seed on line 2.

10. Entered overhead and other money going out as shown.

11. Totaled all total lines (lettered as A, B, etc.) and the total column. Checked for math errors by adding lines D and H horizontally and obtained same figure as in total column.

12. This farmer had $725 in the checking account January 1, which was entered on line J under January. Also, there was $20,840 short-term or current credit borrowed from PCA January 1. This figure was entered in the box at the bottom of the form.

13. As line K was developed, the farmer decided amount to repay on the short-term loan (the principal for a long-term and a seven-year intermediate loan had been entered on line 46) which went on line M. In March and December, it was necessary to borrow $500 and $13,500 which was entered on line L.

STEP 5

Making adjustments as desired.

1. With interest at 12-14% on short-term investments in early 1980, the farmer might decide to transfer part or all of the cash balance (line H) in October and November to line 47 and plan to invest it in some 60-day debentures--or, pay off more of the intermediate loan and increase the operating loan in December and later months.

2. The farmer would then give a copy of this cash flow plan to the lender and indicate when payments would plan to be made and when credit would be needed.

FORM 27 **CASH FLOW** 1980 **FINANCIAL PLAN OR SUMMARY**

	LINE	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG	SEPT.	OCT.	NOV.	DEC.	TOTAL
RECEIPTS														
Crop Sales Wheat	1						1715							1715
Fescue Seed	2							3000						3000
	3													
	4													
Gov't Payments	5													
Custom Work	6							2000						2000
Dividends, Refunds, Resales	7													
Cash Rent, Other Farm	8													
Non-Brdg Livestock Sales	9													
Cattle	10									40000				40000
Hogs	11	4163	7493	4163	7088	3938	7088	4500	8100	4500	7898	4388	7898	71217
Livestock Products	12													
	13													
OPERATING SALES TOTAL (add lines 1 through 13)	A	4163	7493	4163	7088	3938	8803	9500	8100	44500	7898	4388	7898	117932
Breeding Livestock Sales	14													
	15													
	16													
Mach., Equip., Bldgs. Sold	17													
CAPITAL SALES TOTAL (add lines 14 through 17)	B													
TOTAL FARM RECEIPTS (line A plus B)	C	4163	7493	4163	7088	3938	8803	9500	8100	44500	7898	4388	7898	117932
MONEY BORROWED summary only	18													
NON-FARM RECEIPTS	19													
TOTAL DOLLARS AVAILABLE	D	4163	7493	4163	7088	3938	8803	9500	8100	44500	7898	4388	7898	117932
EXPENDITURES														
Feed	20	2400	2400	2400	2275	2275	2275	2275	2875	2275	26275	2400	2400	52525
Vet., Med	21	50	50	50	50	50	50	50	50	50	50	50	50	600
Breeding Fees, Registr.	22													
Fertilizer, Lime	23		210				910				280		2025	3425
Crop Chemicals	24						130							130
Seeds, Crop Supplies	25		113				78							191
Machinery Repair, Maint.	26	50	50	50	50	50	50	50	50	50	50	50	50	600
Building, Fence Repair	27	75	75	75	75	75	75	75	75	75	75	75	75	900

Cas[redacted]nt	2[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Power Fuel, Oil, Grease	30	150	150	160	250	250	250	250	250	260	150	150	160	2400
Hired Labor	31													
Insurance	32				420					220				640
Taxes	33												530	530
Utilities	34	150	150	150	150	150	150	150	150	150	150	150	150	1800
Truck Expenses	35	50	50	50	50	50	50	50	50	50	50	50	50	600
Auto Expenses	36													
Misc. Farm Expenses	37	100	100	100	100	100	100	100	100	100	100	100	100	1200
Interest (existing obligations)	38		1200										5500	6700
Non-Breeding Livestock	39													
Cattle	40										7267	7267	7267	21801
Hogs	41													
OPERATING EXPEND. TOTAL (add lines 20 through 41)	E	3025	4548	3025	3420	3000	4118	3000	3600	3220	34447	10292	18347	94042
Breeding Stock Purchases	42													
	43													
Mach. and Equip. Purchases	44										1200			1200
Land and Bldg. Imprvm'ts	45			800										800
CAPITAL EXPENSES TOTAL (add lines 42 through 45)	F			800							1200			2000
TOTAL FARM EXPENSES (line E plus F)	G	3025	4548	3825	3420	3000	4118	3000	3600	3220	35647	10292	18347	96042
PRINCIPAL PAID existing obligations	46		2000										3000	5000
NON-FARM EXP. AND INVEST.	47													
FAMILY LIVING	FL	833	833	833	833	833	833	833	833	833	833	833	837	10000
TOTAL DOLLARS USED (add lines G through FL)	H	3858	7381	4658	4253	3833	4951	3833	4433	4053	36480	11125	22184	111042
CASH DIFFERENCE FOR MONTH (line D minus H)	I	305	112	-495	2835	105	3852	5667	3667	40447	-28582	-6737	-14286	6890
CASH BALANCE BEGINNING OF MONTH (line N last month)	J	725	30	142	147	182	287	139	306	173	36380	7798	1061	725
CASH AVAILABLE BEFORE BORROWING (line J±I)	K	1030	142	-353	2982	287	4139	5806	3973	40620	7798	1061	-13225	7615
SHORT-TERM LOAN PROCEEDS (if line K is negative)	L			500									13500	14000
SHORT-TERM LOAN REPAYMENTS (if line K is positive)	M	1000			2800		4000	5500	3800	4240				21340
CASH BALANCE END OF MO. (line K plus L minus M)	N	30	142	147	182	287	139	306	173	36380			275	275
SHORT-TERM CREDIT BALANCE line O last month plus L minus M	O	19840	19840	20340	17540	17540	13540	8040	4240	-0-	-0-	-0-	13500	13500
20840		JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	TOTAL

Estimated Family Living*

Item	Average of UMC MIR Farmers 1975	Your Estimate
1. Food	$ 3,360	
2. Clothing	960	
3. Household operation	1,209	
4. Household equipment & furnishings	1,037	
5. Household expense	340	
6. Personal items	1,998	
7. Recreation	322	
8. Education	224	
9. Medicine & Drugs	238	
10. Medical Ins.	603	
11. Doctor, Dentist	845	
12. Church, Charity	690	
13. Gifts	234	
14. Home share of auto	580	
15. Life Ins.	1,630	
16. Income Tax	1,452	
	$15,722	

*Average number of persons per household was 4.5

FORM 27 **CASH FLOW** **FINANCIAL PLAN OR SUMMARY**

	LINE	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG	SEPT.	OCT.	NOV.	DEC.	TOTAL
RECEIPTS														
Crop Sales	1													
	2													
	3													
	4													
Gov't Payments	5													
Custom Work	6													
Dividends,Refunds,Resales	7													
Cash Rent, Other Farm	8													
Non-Brdg Livestock Sales	9													
	10													
	11													
Livestock Products	12													
	13													
OPERATING SALES TOTAL (add lines 1 through 13)	A													
Breeding Livestock Sales	14													
	15													
	16													
Mach.,Equip.,Bldgs. Sold	17													
CAPITAL SALES TOTAL (add lines 14 through 17)	B													
TOTAL FARM RECEIPTS (line A plus B)	C													
MONEY BORROWED summary only	18													
NON-FARM RECEIPTS	19													
TOTAL DOLLARS AVAILABLE	D													
EXPENDITURES														
Feed	20													
Vet., Med	21													
Breeding Fees, Registr.	22													
Fertilizer, Lime	23													
Crop Chemicals	24													
Seeds, Crop Supplies	25													
Machinery Repair, Maint.	26													
Building, Fence Repair	27													

Cash Rent	29													
Power Fuel, Oil, Grease	30													
Hired Labor	31													
Insurance	32													
Taxes	33													
Utilities	34													
Truck Expenses	35													
Auto Expenses	36													
Misc. Farm Expenses	37													
Interest (existing obligations)	38													
Non-Breeding Livestock	39													
	40													
	41													
OPERATING EXPEND. TOTAL (add lines 20 through 41)	E													
Breeding Stock Purchases	42													
	43													
Mach. and Equip. Purchases	44													
Land and Bldg. Imprvm'ts	45													
CAPITAL EXPENSES TOTAL (add lines 42 through 45)	F													
TOTAL FARM EXPENSES (line E plus F)	G													
PRINCIPAL PAID existing obligations	46													
NON-FARM EXP. AND INVEST.	47													
FAMILY LIVING	FL													
TOTAL DOLLARS USED (add lines G through FL)	H													
CASH DIFFERENCE FOR MONTH (line D minus H)	I													
CASH BALANCE BEGINNING OF MONTH (line N last month)	J													
CASH AVAILABLE BEFORE BORROWING (line J±I)	K													
SHORT-TERM LOAN PROCEEDS (if line K is negative)	L													
SHORT-TERM LOAN REPAYMENTS (if line K is positive)	M													
CASH BALANCE END OF MO. (line K plus L minus M)	N													
SHORT-TERM CREDIT BALANCE line O last month plus L minus M	O													
		JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	TOTAL

11c. 5

COOPERATIVE EXTENSION SERVICE UNIVERSITY OF MISSOURI LINCOLN UNIVERSITY

◄ REMOTE
◄ COMPUTER
◄ PLANNING

HOME ECONOMICS Gwynn Hall Columbia, MO 65211 Phone: (314) 882-782

HE 7901

COMPUTER SYSTEM: UMC
SSPEN1 CMS

SSPEND

(SPEEDY SPEND INPUT FORM)

Your first name .... Young Farmer

Number of persons in household 2

Number of cars in household 1

Number of pay periods per year:
(Example: 12, 26, or 52) 12

Take home pay per pay period 833

Food expense per month 167

Monthly car payments 0

Rent or mortgage per month 0

Utilities per month 40

Other debts per month 0

Child care, etc. expense per month 0

(4/79)

HO-6

COOPERATIVE EXTENSION SERVICE UNIVERSITY OF MISSOURI LINCOLN UNIVERSITY

# ◄ REMOTE
◄ COMPUTER
◄ PLANNING

HOME ECONOMICS Gwynn Hall Columbia, MO 65211 Phone: (314) 882-7828

HE 7901

COMPUTER SYSTEM: UMC
SSPEN1 CMM

SSPEND

(SPEEDY SPEND INPUT FORM)

Your first name ____________________

Number of persons in household .... ________

Number of cars in household .... ________

Number of pay periods per year:
(Example: 12, 26, or 52) .... ________

Take home pay per pay period .... ________

Food expense per month .... ________

Monthly car payments .... ________

Rent or mortgage per month .... ________

Utilities per month .... ________

Other debts per month .... ________

Child care, etc. expense per month .... ________

(4/79)

FORM 28 **DATE** **FINANCIAL STATEMENT: FARM AND NON-FARM**

	ASSETS	1-1-80			LIABILITIES AND NET WORTH	1-1-80	
1	Family Bank Balance			45	Charge Accounts		
2	Savings			46			
3	Stocks and Bonds (present value)	8,500		47	Notes, portion due next year		
4	Accounts and Notes Receivable			48	Mortgages, portion due next year		
5	Life Insurance (cash value)			49	Accrued Interest on above		
6	**TOTAL NON-FARM CURRENT ASSETS (add 1 - 5)**	8,500		50	**TOTAL NON-FARM CURRENT LIABILITIES (add 45-49)**		
7	Auto (family share)	700		51	Notes, portion due after next year		
8	Household Furnishings, Clothing, Jewelry	2,000		52			
9	Boat, Camper, etc.			53	Mortgages, portion due after next year		
10	Non-Farm Real Estate	8,000		54			
11	**TOTAL NON-FARM ASSETS (add 6 - 10)**	19,200		55	**TOTAL NON-FARM LIABILITIES (add 50-54)**		
				56	**NON-FARM NET WORTH (line 11 minus line 55)**	19,200	
12	Cash in Farm Account	5,960		57	Short Term Farm Notes Payable (form 22, col. 9)		
13	Farm Accounts Receivable			58	PCA	20,840	
14	Swine, non-breeding (form 16 line 10)	14,225		59			
15	Beef, non-breeding (form 16, line 23)	22,186		60	Accounts Payable		
16	Dairy, non-breeding (form 16, line 35)			61			
17	Other, non-breeding (form 16, line 42)			62			
18	Purchased Feeds (form 17, line 7)			63	Portion of Int. & Long Term Debt due next year F. 21		
19	Stored Crops (form 17, line 18)	4,788		64	PCA	3,000	
20	Growing Crops (form 17, line 21)	400		65	Ind.	2,000	
21	Crop Supplies (form 17, line 36)			66			
22	Livestock Supplies (form 17, line 43)			67	Accrued Liabilities (taxes, rent, interest)		
23	Other Current Assets:			68			
24				69			
25	**TOTAL FARM CURRENT ASSETS (add 12 - 24)**	47,559		70	**TOTAL FARM CURRENT LIABIALITIES (add 57-69)**	25,840	
26	Swine, breeding (form 16, line 5)	6,300		71	Portion of Int. Term Debt due after next year F. 21		
27	Beef, breeding (form 16, line 16)			72	(breeding stock, machinery and equipment)		
28	Dairy, breeding (form 16, line 30)			73	PCA	11,000	
29	Other, breeding (form 16, line 39)			74			
30	Machinery & Equipment - book value (form 13)	6,135		75			
31	**TOTAL FARM INTERMEDIATE ASSETS (add 26 - 30)**	12,435		76	**TOTAL FARM INTERMEDIATE LIABILITIES (add 71-75)**	11,000	
32	Buildings - book value (form 18, line 14)	22,388		77	Portion Lg. Term Debt due after next year F. 21	18,000	
33	Land, improvements (form 18, line 24)			78			
34	Land, original cost (form 18, line 30)	88,000		79			
35	**TOTAL FARM LONG TERM ASSETS (add 32 - 34)**	110,388		80	**TOTAL FARM LONG TERM LIABILITIES - (add 77-79)**	18,000	
36	**TOTAL FARM ASSETS - book value (25 + 31 + 35)**	170,382		81	**TOTAL FARM LIABILITIES (70 + 76 + 80)**	54,840	
	ADJUSTMENTS TO PRESENT VALUES			82	**FARM NET WORTH - book values (36 minus 81)**	115,542	
37	Breeding Livestock Adjustment (form 15)			83	**FARM NET WORTH - present values (42 minus 81)**		
38	Mach. and Equip. Adjustment (form 13)			84	**TOTAL LIABILITIES (55+81)**	54,840	
39	Buildings and Land Adjustment (form 18)			85	**TOTAL NET WORTH - book values (43 minus 84)**	134,742	
40	Other:			86	**TOTAL NET WORTH - present values (44 minus 84)**		
41	**TOTAL ADJUSTMENTS (add 37-40)**						
42	**TOTAL FARM ASSETS - present values (36 + 41)**	170,382		87	**NON-FARM NET WORTH - change for year (line 56)**		
43	**TOTAL ASSETS - book values (11 + 36)**	189,582		88	**FARM NET WORTH - change for year (line 82)**		
44	**TOTAL ASSETS - present values (11 + 42)**			89	**ADJUSTMENTS - change for year (line [illegible]**		

TM-5 HO-1 A

Farm Business Management

and Analysis Program

Unit I - Establishing a Farm Accounting System

Lesson 5 - Developing Depreciation Schedule for Machinery

A. Review

The previous lesson, Planning the Year's Cash Flow, should be reviewed. List all conclusions reached at your last meeting. Possible conclusions may have included:

1. A cash flow plan should increase our profits because of better planning, lower credit costs, and more effective tax planning.

2. The steps in planning are:
   a. Identifying crop and livestock plans.
   b. Identifying other costs and returns.
   c. Identifying family living estimates.
   d. Complete the form.
   e. Make adjustments.

3.

4.

B. Objective

To complete a depreciation schedule for machinery.

C. Motivation

1. Tell the story of a farmer who purchased a pickup truck on January 1st for $6,500. When he began figuring his income tax for the year, he computed his investment credit to be $434, his additional 20% first year depreciation to be $1,000 and his normal depreciation to be $666. This was figured on a six year life and a $1,500 salvage value. The straight line method for calculating depreciation was used. By reducing his taxes by $2,100 for the year, he figured that the truck actually cost him $4,400.

   Point out that the situation described would only work if the farmer would have had to pay taxes to begin with. It is also very important to note the importance of good records so that he could take advantage of the situation he was in when figuring his taxes. Have enrollees comment on this situation.

2. Administer the accompanying quiz as a motivating experience for enrollees.

D. Key Points

Key points which will be accomplished are as follows:

1. Guidelines for completing depreciation forms for machinery.
2. Recording a depreciation schedule for machinery.

E. Introduction of Information

1. Guidelines

Depreciation is the decrease in value that occurs regardless of repair and maintenance. Good records are necessary for accurate income tax reporting.

Distribute copies of HO-1 and HO-2 to enrollees. Next, show TM-1 and TM-2 as you explain the use of each column on the depreciation forms.

a. Column 1 - enter date purchased. Enter month and year, as 5/80, so you know what percent of the first year's depreciation can be claimed.

b. Column 2 - provide enough description so you can identify the machine several years later.

c. Column 3 - this is a column to record an identification number for a machine if it is available. Most farmers do not use this column.

d. Column 4 - enter "N" if the machine is new and "U" if used. This notation is necessary for completing IRS investment credit forms.

e. Column 5 - enter the number of dollars of investment credit claimed. Investment credit is a direct credit allowance against taxes due on certain investments. It is claimed the year the item is placed in service, which is the year you normally start depreciation.

Generally, investment credit is allowed on all depreciable, tangible personal property including livestock acquired for breeding or dairy purposes (except horses) plus other if (a) used as an integral part of manufacturing or production, and (b) constitutes a research or storage facility used in connection with these activities.

Some examples of qualifying items: farm machinery, breeding livestock, tile drains, feeding floors, water systems, depreciable drainageways, fences, gates, bins, silos, electrical installations, buildings if an integral part of production - as an example, confined feeding system.

The sum of the basis of all new eligible property qualifies. On used property, qualification is limited to the cost or cash difference paid.

Show transparency TM-3 to illustrate how the portion of basis that qualifies for investment credit is computed. Next, show TM-4 to illustrate an example of computing investment credit.

The extent of credit that qualifies is:

Useful Life (years)	% of Cost or Basis
7 or more	100
5 - 6	66 2/3
3 - 4	33 1/3
less than 3	0

(1) The amount of credit is limited to:

(a) The tax liability.

(b) If the tax liability exceeds $25,000, use the credit on $25,000 plus 60% of the liability over $25,000 in 1980, 70% in 1981 and 90% in 1982.

(c) Unused credit can generally be carried back three years and forward seven years.

(2) Tips

(a) Estimate the life on the long side; you can always pay back if you trade the item, but you cannot get more credit if you keep it longer.

(b) When to expense an item rather than depreciate and take investment credit? Varies by individuals, but depreciation will recover all costs and you get the investment credit in addition. A $50 item may not be worth the trouble.

(c) If you buy a farm, take investment credit on all qualified items on the farm as fences, water systems, etc.

(d) Secure Publication 572, "Tax Information on the Investment Credit" from Internal Revenue for more details.

f. Column 6 - enter the book value or undepreciated value of a machine traded in. As an example, if you buy a new disc and trade in an old disc, determine the undepreciated value of the old disc and enter it in Column 6. Do not use the amount allowed by the dealer nor the current market price of the old disc. Book value refers to the record book value.

g. Column 7 - enter the cash difference paid for the new machine. If a trade-in was included, it is the "boot" paid and is the same figure used on Forms 7 and 9 - Column 44. Even if money is borrowed to pay this cash difference, enter the cash difference. Do not use figures as "list price."

h. Column 8 - add Columns 6 and 7 to get this figure. If Column 6 is blank or -0-, then this is the same as Column 7. Note that the word used here is "basis." It is not necessarily what the machine is worth nor its value to you, but is the base from which you start depreciating and also determine investment credit.

i. Column 9 - enter the additional first year depreciation claimed. Generally, in years in which your income is higher than average, you would claim this additional depreciation. In years in which your income is below average, you probably would not claim it.

You may elect to deduct an additional first-year depreciation allowance on new or used tangible personal property that has a useful life of six years or more when purchased. Buildings, structures, and improvements on real property are not eligible for this special depreciation. You may obtain this additional allowance only in the first tax year a depreciation deduction is allowable on such property. The maximum additional allowance is 20% of the cost (without reduction for salvage) of qualifying property not in excess of $10,000 if a separate return is filed. It is claimed only on "new money" or the cash difference paid if an item is also traded in.

Even though the property was not owned the full year, the maximum allowance for the additional first year depreciation may be taken. After taking this allowance, you may also take the regular depreciation to which you are entitled for the year, computed after adjusting the basis of the property for the first year allowance and such other things as salvage value.

j. Column 10 - enter the salvage value of the machine.

Salvage value is the amount estimated to be realizable when you withdraw the machine from your farming business. To determine this, estimate what a machine of the size being depreciated of the age you expect to keep the new machine is worth today. As an example, if you purchase a new 100 h.p. tractor this year and plan to depreciate it over eight years, estimate what an eight year old 100 h.p. tractor similiarly equipped to your new one is currently selling for and enter that as salvage value. Some special rules should also be called to your attention: (1) if the useful life is three years or more, you may reduce salvage value 10% of the basis (Column 8), (2) if estimated salvage value is 10% or less of the basis, salvage value can be entered as -0-, and (3) if the declining balance method of depreciation is used, salvage value is not considered in determining the balance for depreciation - you need to enter it, though, so you stop depreciation when the undepreciated balance is down to the salvage value.

k. Column 11 - if you use the straight line method, subtract Columns 9 and 10 from Column 8 to get this figure (Total Cost Basis - additional First Year Depreciation - Salvage Value = Balance for Regular Depreciation). If you use the declining balance method, subtract Column 9 from Column 8 (Total Cost Basis - Additional First Year Depreciation = Balance for Regular Depreciation).

l. Column 12 - enter the estimated number of years you plan to keep this machine. A guide provided by IRS in their "Asset Depreciation Range" is as follows:

	Lower Limit	Guideline	Upper Limit
Machinery and equipment, including grain bins and fences but no other land improvement.	8	10	12

You may deviate from these figures if you can justify the life you use. Most farmers who are paying considerable income tax use an eight year life for machinery and equipment. This qualifies for full investment credit and also use of additional first year depreciation. Young farmers that are accumulating most of their income in the form of increased inventories and paying little or no income tax will want to use twelve years. If you consistently trade pickups every three years and expect to continue this practice, you would use three years in Column 12 for your pickup.

m. Column 13 - use SL for Straight Line, DB for Declining Balance, and SD for sum of the years digits. Any reasonable and consistent method of computing depreciation may be used. The three methods most generally used are: (1) the straight line method, (2) the declining balance method, and (3) the sum of the years digits method. If you record your assets in separate accounts (on separate lines in the record book) in your record books, you may compute depreciation on the different assets by different methods.

(1) The Straight Line Method: Under this method, depreciation for each tax year is determined by dividing the adjusted basis of the property at the beginning of the tax year, less salvage value, by the remaining useful life of the property at that time.

(2) The Declining Balance Method: May be used only to determine the depreciation allowance on tangible property. The depreciation taken each year is substracted from the basis of the property before figuring the next year's depreciation, so that the same depreciation rate is applied to a smaller or declining balance each year. Salvage value is not deducted from the basis of the property before figuring depreciation under this method and an unrecovered cost remains at the end of the useful life of the property.

There are limitations on the maximum rate that may be used to compute depreciation under the declining balance method. Under some circumstances, you may use a rate that is twice as great as the rate that would be proper under the straight line method.

Under other circumstances, you are limited to a rate that may be used to compute depreciation under this method on any of the following tangible property (except certain real estate as discussed below):

(a) Property having a useful life of three years or more that you acquire new after December 31, 1953.

(b) Property having a useful life of three years or more that is constructed, reconstructed, or erected by you after December 31, 1953.

Straight line is required on used buildings and a maximum of 150 percent Declining Balance on new buildings.

(3) The *sum of the years-digits method* is also limited in use to certain property. To determine whether it may be used to compute depreciation on any property, the same tests must be applied as those used to determine whether a declining balance rate of twice the straight line rate may be used.

A different fraction is applied each year to the basis of the property less its estimated salvage value. The denominator, or bottom, of the fraction is the total of the numbers representing the years of useful life of the property. For example, if the useful life is five years, the denominator is 15 (1 + 2 + 3 + 4 + 5 = 15). The numerator, or top of the fraction is the number of years of life remaining at the beginning of the year for which the computation is made. For the first year of a five-year life, the numerator would be five.

(4) Show transparency TM-5 to compare the three methods of depreciation. The depreciation in each case is based on a new tractor, having an estimated useful life of ten years, purchased on January 3, for $10,000. Salvage value, estimated to be $800, is not taken into consideration in computing depreciation since it is less than 10 percent of the cost of the tractor. Additional first-year depreciation has been elected since the tractor is tangible personal property having a life of over six years. The deduction is 20 percent of the $10,000 cost, or $2,000.

	Annual Depreciation		
Year	**Straight line (10%)**	**Declining balance (20%)**	**Sum of the years-digits**
First year additional depreciation...	**$2,000**	**$2,000**	**$2,000**
First year ordinary depreciation.....	**800**	**1,600**	**1,455**
Total depreciation first year..	**2,800**	**3,600**	**3,455**
Second year....................	**800**	**1,280**	**1,309**
Third year.....................	**800**	**1,024**	**1,164**
Fourth year....................	**800**	**819**	**1,018**
Fifth year.....................	**800**	**655**	**873**
Sixth year.....................	**800**	**524**	**727**
Seventh year...................	**800**	**420**	**582**
Eighth year....................	**800**	**336**	**436**
Ninth year.....................	**800**	**268**	**291**
Tenth year.....................	**800**	**215**	**145**
	$10,000	**$9,141**	**$10,000**
Unrecovered cost.....................	**......**	**$ 859**	**......**

(a) *Straight Line Method.* The depreciation allowance for the first year is computed as follows: Deduct $2,000 (additional first-year depreciation) from $10,000 (cost of tractor), leaving $8,000 to be divided by ten (the number of years of useful life) to arrive at the annual depreciation allowance of $800.

(b) *Declining Balance Method.* The annual ordinary depreciation under this method may not exceed twice the normal straight line rate. In the above example, the straight line rate was 10 percent (100 percent ÷ 10 year life = 10 percent per year) so the double declining balance rate is 20 percent (straight line of 10 percent x 2 = 20 percent). The ordinary depreciation in the first year is $1,600, 20 percent of $8,000 ($10,000 cost less $2,000 additional first-year depreciation). The depreciation for the second year is $1,280 (20 percent of $6,400 the unrecovered cost), and so on.

(c) *Sum of the years-digits method.* The ordinary depreciation would be $1,455 the first year. This is 10/55 of $8,000 ($10,000 cost less $2,000 additional first-year depreciation). The numerator, or top, of the fraction represents the ten years of useful life remaining at the beginning of the year, and the denominator, or bottom, of the fraction is the sum of the numbers one through ten. The depreciation the second year is 9/55 of $8,000, and so on.

(5) Tips on using depreciation to your advantage:

(a) Use double declining balance method if income is high enough to owe taxes. The present value technique of comparing a flow of funds points out the importance of getting refunds or delaying payment (it is the interest saved on this amount of money). As an example, on a $20,000 machine electing the DDB method with additional 20 percent first year for a farmer in the 25 percent tax bracket and an opportunity cost of money of 8 percent, there would be a $917 savings of interest on the taxes delayed with DDB over the life of the machine.

(b) Use eight years of life if paying taxes.

(c) Keep accurate depreciation records. Many tax returns do not include depreciation on all items owned by a farmer due to errors and oversight.

n. Column 14 - use a percent figure for declining balance method and a dollar figure for straight line method. If life of an asset is eight years, the percent figure for declining balance in this column is 25 percent (100 percent ÷ 8 years = 12.5 percent x 2 = 25 percent). If the above asset had a column 11 value of $8,000; $1,000 would be entered here ($8,000 ÷ 8 years = $1,000) for the straight line method.

o. Column 15A - this column is used if an asset has been owned for one or more years prior to entering it in this record book. As an example, a farmer has been using a record system without a depreciation schedule and the tax preparer has typed a depreciation schedule each year. That farmer would determine the depreciation claimed on tax returns in prior years to enter that figure in column 15A. It is equal to Original Cost Basis minus remaining undepreciated value. No figure is entered here for machines purchased after January 1 of the year in which this depreciation schedule is set up.

p. Column 16A - enter the difference between column 8 and column 15A (column 8 - column 15A = column 16A). No figure is entered here for machines purchased after January 1 of the year in which this depreciation schedule is set up.

q. Column 15B - enter the depreciation claimed this year. If the straight line method is used, it is the same figure as in column 14. If the declining balance method is used, it is the percent figure in column 14 times the figure in column 11. When an item has been depreciated out (remaining book value equal to salvage value), enter -0- here.

r. Column 16B - enter the remaining book value or undepreciated amount. For items with an entry in column 15A and 16A (on hand prior to January 1 of year setting up this schedule), subtract column 15B from 16A (16A - 15B = 16B). For items purchased after January 1 of the year you set up this schedule and if depreciation method is declining balance, add column 10 to column 11 and subtract column 15B (column 10 + column 11 - column 15B = column 16B).

Remember, we want the remaining book value in columns 16B, 16C, 16D, etc., to include salvage value. Also, remember to stop depreciating when this column equals salvage value.

s. Column 17A - enter the estimated current cash value. This may be higher than the remaining book value.

t. Hints on using Forms 12 and 13:

(a) When an item is no longer used, write the disposition on the line. As an example, write "traded in on new 4430 tractor" or "junked" or "depreciated out."

(b) Columns to the right on forms 12 and 13 which are numbered 17, are not used for tax purposes. With inflation at the present rate, though, frequently the current market value of a machine is much higher than the remaining book value or undepreciated value. These columns can be used in order to keep financial statements on a more current basis, to be sure insurance is kept at an acceptable level, and to provide a more accurate picture of current investments in the farm business.

(c) Columns for four years depreciation are on Form 13. At the end of four years, secure another Form 13 and staple it to this one--leave Form 12 as is with the basic information on it.

(d) Farmers with more than 25 items to go on Forms 12 and 13 can add one page prior to the present Form 12--this will give a complete set again.

(e) One line can be left at the bottom of each year to total Investment Credit and Additional First Year Depreciation. Then, items purchased in following years are entered on the next lines.

2. Recording Depreciation

Distribute HO-3 to enrollees and allow enrollees ample time to make the first entry on HO-1 and HO-2. Then, with the use of an overhead projector, illustrate how the make the first entry. Complete the rest of the entries by allowing class members time to make an entry, then follow with your example.

Examples of entries on depreciation format are as follows:

ORM 12 PAGE

DEPRECIATION SCHEDULE: ______________ MACHINERY AND EQUIPMENT

LINE	DATE ACQUIRED	ITEM DESCRIPTION KIND OF MACHINE, MAKE, MODEL, SIZE	ID. NO.	NEW OR USED	INVEST. CREDIT	COST INFORMATION			ADDITI. FIRST YEAR DEPREC.	SALVAGE VALUE	DEPRECIATION INFORMATION					LINE
						REM'NG BOOK VALUE OF TRADE-IN	CASH. DIFF. PAID	TOTAL COST BASIS			BALANCE FOR REGULAR DEPREC.	LIFE	METHOD	ANNUAL DEPREC % or $	DEPREC. TAKEN IN PRIOR YEARS	
1	11/78	Ford 6600		N	1370	4200	9500	13700	1900	6000	11800	8	D	25%		1
2	11/78	Ford 6600		N	1370	4200	9500	13700	0	6000	7700	12	S	641		2
3	11/78	Ford 6600		U	950	4200	9500	13700	1900	6000	11800	8	D	25%		3
4	11/78	Ford 6600		N	1600	0	16000	16000	3200	6000	12800	8	D	25%		4
5	1/77	Tractor		N			12000	12000	2400	1800	9600	8	DB	25%	5550	5
6	1/77	Plow		N			1500	1500	300	150	1200	8	SL	150	450	6
7	9/79	Truck 3/4 Ton		N		1000	4000	5000			5000	4	SYD	4/10	667	7
8	7/78	Offset Disc		N		400	3100	3500	700		2800	10	SL	280	420	8
9	1/79	Chevy (50%)		N		300	2700	3000		600	3000	3	DB	66.6%	2000	9
10																10
11																11
12																12
13																13
14																14
15																15
16																16
17																17
18																18
19																19
20																20
21																21
22																22
23																23
24																24
25																25
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15A	

[redacted]OR[redacted]3 [redacted] PA[redacted] [redacted]DEP[redacted]CIA[redacted]N [redacted]HE[redacted]LE: [redacted] [redacted] [redacted] [redacted]MACHI[redacted]RY [redacted]AND [redacted]EQUIP[redacted]MENT [redacted](CONT.)

LINE		END 1979		END 1980		END 19_ _		END 19_ _	
	REM'NG BK. VAL. AT START OF YEAR	DEPREC THIS YEAR	REM'NG BOOK VALUE	DEPREC. THIS YEAR	REM'NG BOOK VALUE	DEPREC. THIS YEAR	REM'NG BOOK VALUE	DEPREC. THIS YEAR	REM'NG BOOK VALUE
1		492	11308	2827	8481				
2		107	7593	641	6952				
3		492	11308	2827	8481				
4		533	12267	3067	9200				
5	4050			1012	3038				
6	750			150	600				
7	4333			1833	2500				
8	2380			280	2100				
9	1000			400	600				
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
	16A	15B	16B	15C	16C	15D	16D	15E	16E

ESTIMATED CURRENT CASH VALUE					
START 1979	END 1980	END 19_ _	END 19_ _	END 19_ _	LINE
15000	14500				1
15000	14500				2
15000	14500				3
15000	14500				4
					5
					6
					7
					8
					9
					10
					11
					12
					13
					14
					15
					16
					17
					18
					19
					20
					21
					22
					23
					24
					25
17A	17B	17C	17D	17E	

F. Group Discussion

Sufficient time should be allotted for enrollees to ask questions and discuss other types of entries not illustrated. Be sure that the discussion period enables farmers to be sure that they are knowledgeable of how to use the form for depreciating machinery.

Administer the accompanying quiz to ascertain the level of knowledge in the area of developing depreciation schedules for machinery.

G. Conclusions

Conclusions which may be reached include:

1. depreciation is an expense which may decrease taxes.
2. additional first year depreciation may be claimed if a large amount of taxes are expected.
3. seven years of useful life qualifies for a full 10 percent of the basis for investment credit.
4. sum of the years digits and declining balance are methods to accelerate depreciation.
5.
6.
7.

H. Announcements

Next meeting, we will be working with depreciation schedules for livestock and inventories.

I. Social

J. On the Farm Instruction

When visiting enrollees following this lesson, be sure that his depreciation schedule for machinery is completed. If this is not complete, assist the farmer in entering all of his machinery on forms 12 and 13.

ORM 12 PAGE DEPRECIATION SCHEDULE: ____________ MACHINERY AND EQUIPMENT

LINE	DATE ACQUIRED	ITEM DESCRIPTION KIND OF MACHINE, MAKE, MODEL, SIZE	ID. NO.	NEW OR USED	INVEST. CREDIT	COST INFORMATION			ADDITI. FIRST YEAR DEPREC.	SALVAGE VALUE	DEPRECIATION INFORMATION					LINE
						REM'NG BOOK VALUE OF TRADE-IN	CASH. DIFF. PAID	TOTAL COST BASIS			BALANCE FOR REGULAR DEPREC.	LIFE	METHOD	ANNUAL DEPREC % or $	DEPREC. TAKEN IN PRIOR YEARS	
1																1
2																2
3																3
4																4
5																5
6																6
7																7
8																8
9																9
10																10
11																11
12																12
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14																14
15																15
16																16
17																17
18																18
19																19
20																20
21																21
22																22
23																23
24																24
25																25
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15A	

HO-1

141

142

HO-2

[redacted]ORM[redacted]3 [redacted] PA[redacted] [redacted]EPRE[redacted]CIA[redacted]N [redacted]HE[redacted]E: [redacted] [redacted] [redacted] MACH[redacted]RY[redacted]ND [redacted]UIP[redacted]NT[redacted](CON[redacted])

LINE		END 19_ _		END 19_ _		END 19_ _		END 19_ _		ESTIMATED CURRENT CASH VALUE					LINE
	REM'NG BK. VAL. AT START OF YEAR	DEPREC THIS YEAR	REM'NG BOOK VALUE	DEPREC. THIS YEAR	REM'NG BOOK VALUE	DEPREC. THIS YEAR	REM'NG BOOK VALUE	DEPREC. THIS YEAR	REM'NG BOOK VALUE	START 19_ _	END 19_ _	END 19_ _	END 19_ _	END 19_ _	
1															1
2															2
3															3
4															4
5															5
6															6
7															7
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18															18
19															19
20															20
21															21
22															22
23															23
24															24
25															25
	15A	15B	16B	15C	16C	15D	16D	15E	16E	17A	17B	17C	17D	17E	

F13

144

Instructions: Compute depreciation for the year of 1980.

1. A farmer owing a lot of income tax purchased a new Ford 6600 tractor in November, 1978, for $9,500 plus traded in a used tractor with a remaining undepreciated value of $4,200. The list price was $17,000 and the dealer allowed $7,500 on the used tractor.

2. Assume the same situation as in example one except this time it is a young farmer that owes no tax this year, but expects to have a higher income in four or five years.

3. Again, assume the same situation as in example one except this time the Ford 6600 was "used" when purchased.

4. Once more assume the same situation as in example one except this time the farmer purchases the tractor for $16,000 and has no trade in.

5. A new tractor purchased in January, 1977, for $12,000. Take additional 20 percent first year depreciation, assume a salvage value of $1,200 in eight years. Use the declining balance method for figuring depreciation. Depreciation taken in prior years was $5,550.

6. A new plow was purchased in January, 1977, for $1,500. Take additional first year depreciation and assume a salvage value of $150 in eight years. Use the straight line method for depreciation. Four hundred fifty dollars was depreciated in prior years.

7. In September, 1979, a new 3/4 ton truck was purchased for $4,000 with a trade in with $1,000 remaining book value. Use a four year life and the sum of the years digits method for computing depreciation. Depreciation in prior years is $667.

8. In July, 1978, a new offset disc was purchased for $3,100 and a traded in disc with a remaining book value of $400. Additional first year depreciation was taken. No salvage value was placed on the disc after an estimated 10 year life. Use the straight line method for computing depreciation. Four hundred twenty dollars depreciation was taken in prior years.

9. In January, 1979, a new Chevrolet was purchased with an expected 50 percent of the car being used for business. Another car with a remaining book value of $300 was traded in and $2,700 was paid in cash. A $600 salvage value was assumed at the end of 3 years. Use the declining balance method for computing depreciation. Depreciation taken in prior years amounts to $2,000.

-ORM 12 PAGE DEPRECIATION SCHEDULE: ______________ MACHINERY AND EQUIPMENT

LINE	DATE ACQUIRED	ITEM DESCRIPTION KIND OF MACHINE, MAKE, MODEL, SIZE	ID. NO.	NEW OR USED	INVEST. CREDIT	COST INFORMATION			ADDITI. FIRST YEAR DEPREC.	SALVAGE VALUE	DEPRECIATION INFORMATION					LINE
						REM'NG BOOK VALUE OF TRADE-IN	CASH. DIFF. PAID	TOTAL COST BASIS			BALANCE FOR REGULAR DEPREC.	LIFE	METHOD	ANNUAL DEPREC % or $	DEPREC. TAKEN IN PRIOR YEARS	
1																1
2																2
3																3
4																4
5																5
6																6
7																7
8																8
9																9
10																10
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14																14
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16																16
17																17
18																18
19																19
20																20
21																21
22																22
23																23
24																24
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15A	

TM-1

TM-2

FORM 13 PAGE DEPRECIATION SCHEDULE: ______ MACHINERY AND EQUIPMENT (CONT.)

LINE	REM'NG BK. VAL. AT START OF YEAR	END 19_ _		END 19_ _		END 19_ _		END 19_ _		ESTIMATED CURRENT CASH VALUE					LINE
		DEPREC THIS YEAR	REM'NG BOOK VALUE	DEPREC. THIS YEAR	REM'NG BOOK VALUE	DEPREC. THIS YEAR	REM'NG BOOK VALUE	DEPREC. THIS YEAR	REM'NG BOOK VALUE	START 19_ _	END 19_ _	END 19_ _	END 19_ _	END 19_ _	
1															1
2															2
3															3
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21															21
22															22
23															23
24															24
25															25
	16A	15B	16B	15C	16C	15D	16D	15E	16E	17A	17B	17C	17D	17E	

PORTION OF BASIS QUALIFYING FOR INVESTMENT CREDIT

USEFUL LIFE (YEARS)	% OF COST OR BASIS
7 OR MORE	100
5 - 6	66 2/3
3 - 4	33 1/3
LESS THAN 3	0

TM-4

A TRACTOR IS PURCHASED WITH A CASH DIFFERENCE OF $10,000. THE TRACTOR TRADED IN HAS A BOOK VALUE OF $5,000. ASSUME SEVEN YEARS USEFUL LIFE.

IF TRACTOR IS NEW	IF TRACTOR IS USED
15000	10000
x .10	x .10
$ 1500	$ 1000
INVESTMENT CREDIT	INVESTMENT CREDIT

ASSUME SIX YEARS USEFUL LIFE.

IF TRACTOR IS NEW	IF TRACTOR IS USED
15000	10000
x .66	x .66
$10000	$ 6666
x .10	x .10
$ 1000	$ 666

DEPRECIATION EXAMPLE

YEAR	ANNUAL DEPRECIATION		
	STRAIGHT LINE (10%)	DECLINING BALANCE (20%)	SUM OF THE YEARS DIGITS
FIRST YEAR ADDITIONAL DEPRECIATION	$ 2,000	$2,000	$ 2,000
FIRST YEAR ORDINARY DEPRECIATION	800	1,600	1,455
TOTAL DEPRECIATION FIRST YEAR	2,800	3,600	3,455
SECOND YEAR	800	1,280	1,309
THIRD YEAR	800	1,024	1,164
FOURTH YEAR	800	819	1,018
FIFTH YEAR	800	655	873
SIXTH YEAR	800	524	727
SEVENTH YEAR	800	420	582
EIGHTH YEAR	800	336	436
NINTH YEAR	800	268	291
TENTH YEAR	800	215	145
	$10,000	$9,141	$10,000
UNRECOVERED COSTS		$ 859	

Farm Business Management

and Analysis Program

Lesson 5 - Quiz

Complete the following forms for the items partially recorded. Assume taking investment credit and additional first year depreciation for each item.

FORM 13 **PAGE** **DEPRECIATION SCHEDULE:** ______ **MACHINERY AND EQUIPMENT (CONT.)**

		END 1980		END 19_ _		END 19_ _		END 19_ _		ESTIMATED CURRENT CASH VALUE					
LINE	REM'NG BK. VAL. AT START OF YEAR	DEPREC THIS YEAR	REM'NG BOOK VALUE	DEPREC. THIS YEAR	REM'NG BOOK VALUE	DEPREC. THIS YEAR	REM'NG BOOK VALUE	DEPREC. THIS YEAR	REM'NG BOOK VALUE	START 19_ _	END 19_ _	END 19_ _	END 19_ _	END 19_ _	LINE
1	8343														1
2	24607														2
3															3
4															4
5															5
6															6
7															7
8															8
9															9
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24															24
25															25
	16A	15B	16B	15C	16C	15D	16D	15E	16E						

C.I.M 12 PAGE DEPRECIATION SCHEDULE: ______________ MACHINERY AND EQUIPMENT

LINE	DATE ACQUIRED	ITEM DESCRIPTION KIND OF MACHINE, MAKE, MODEL, SIZE	ID. NO.	NEW OR USED	INVEST. CREDIT	COST INFORMATION			ADDITI. FIRST YEAR DEPREC.	SALVAGE VALUE	DEPRECIATION INFORMATION					LINE
						REM'NG BOOK VALUE OF TRADE-IN	CASH. DIFF. PAID	TOTAL COST BASIS			BALANCE FOR REGULAR DEPREC.	LIFE	METHOD	ANNUAL DEPREC % or $	DEPREC. TAKEN IN PRIOR YEARS	
1	2/79	J.D. Corn Planter		N	960	0	9600	9600	1920	0	9600	7	S	1371	1257	1
2	7/79	J.D. 8430 Tractor		N	3500	12000	23000	35000	1610	8500	26500	7	S	3786	1893	2
3	3/80	Field Cultivator		N		0	12,000					10	S			3
4	4/80	A.C. Disk 181		U		0	2800					5	S			4
5	5/80	IHC Plow		N		0	8000					7	S			5
6	8/80	8 foot mower		N		0	4000					7	S			6
7																7
8																8
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23																23
24																24
25																25
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15A	

Farm Business Management
and Analysis Program

Unit I - Establishing a Farm Accounting System

Lesson 6 - Developing Depreciation Schedules for Livestock and Developing Inventories

A. Review

The previous lesson, Developing Depreciation Schedules for Machinery, should be reviewed. List all conclusions reached at your last meeting so that enrollees will be able to recall basic depreciation terminology and computations. Possible conclusions may have included:

1. Depreciation is an expense which may decrease taxes.
2. Additional first year depreciation may be claimed if a large amount of taxes are expected.
3. Seven years of useful life qualifies for a full 10% of the basis for investment credit.
4. Sum of the Years Digits and Declining Balance are methods to accelerate depreciation.
5.
6.
7.

B. Objective

To complete a depreciation schedule for livestock and complete an inventory.

C. Motivation

Ask the enrollees why a farmer who does not depreciate his herd of commercial cows keeps a depreciation schedule for livestock.

Reasons for keeping a depreciation schedule for a commercial livestock enterprise should be addressed by the enrollees. Reasons which might be concluded should include the importance of a record for inventory of purchased breeding livestock and, more importantly, the importance for computing investment credit on purchased animals. If the herd was to be depreciated, the value of computing yearly depreciation is obvious.

Administer the accompanying quiz as a motivating experience for enrollees.

D. Key Points

Key points which will be accomplished tonight are as follows:

1. Guidelines for completing depreciation forms for livestock.
2. Recording a depreciation schedule for livestock.
3. Guidelines for inventories.
4. Recording inventories for livestock and feed, stored and growing crops and crop and livestock supplies.

E. Introduction of Information

1. Guidelines

Distribute copies of HO-1 and HO-2 to enrollees. Next, show TM-1 and TM-2 as you explain the purpose of each column on the depreciation forms.

The only livestock entered on these forms are purchased breeding animals. Do not enter raised breeding animals since their costs were deducted in the form of feed, etc., as they were raised. Also, do not enter purchased feeder livestock as feeder pigs, feeder calves, etc., since they do not depreciate and are not producing animals.

a. Column 1 - enter date purchased including month and year (4/78).

b. Column 2 - enter an identification number for an individual animal or a lot number if available. Most commercial breeders would not use this column. Some registered breeders and/or dairy farmers that need to keep individual identification of animals may want to use this column.

c. Column 3 - enter a description so you can identify which group this refers to.

d. Column 4 - enter number of head in the group or lot when acquired (purchased). If Column 2 was used and each animal is listed separately, the figure 1 will be entered here. Most farmers will enter the total head purchased at one time and use the "first in - first out" system of inventory on the depreciation schedule. This system assumes that the first animal sold (or died) came out of the first lot purchased. As an example, assume 30 head of breeding heifers were purchased 4/75 and 20 head of breeding heifers were purchased 5/77. Then on 3/79, three cows were culled and sold. Since it would be difficult to identify which group these were in, this method has some income tax advantages on maximizing use of investment credit and depreciation.

e. Column 5 - enter the amount of investment credit claimed. (Horses do not qualify.)

f. Column 6 - enter if the breeding livestock is "new" or "used." It is considered to be "new" if put to first use by you. As an example, a bred heifer that has not calved is considered "new" and a four year old cow with a calf by side is "used." This is necessary for income tax reporting since new and used property is divided on the investment credit tax form and there is a limitation on amount of investment credit allowed on used property.

g. Column 7 - note that Columns 7-12 are on a "Per Head Basis." Column 7 is usually the purchase price per head. The only exception is if some other animals were "traded-in" on these animals. Refer to the explanation of Form 12 - Column 8 on determining basis in that situation.

h. Column 8 - enter estimated salvage value. This is the price you expect to receive when you are through using them. It is generally the "meat price" or the price they will bring as slaughter animals. In many situations, the salvage value will be at least equal to the purchase price, especially for commercial (non-registered) breeding stock. Salvage value is never more for record keeping purposes than the cost basis. Animals still need to be entered in the depreciation schedule to claim investment credit even though no depreciation will be claimed and the information here is needed to figure "capital gains or loss" when the animals are sold.

i. Column 9 - enter the difference between Columns 7 and 8 (Column 7 - Column 8 = Column 9).

j. Column 10 - enter estimated years you expect to keep the animals. IRS guidelines are as follows:

	Lower Limit	Guideline	Upper Limit
Cattle, breeding or dairy	5.5	7	8
Horses, breeding or work	8	10	12
Hogs, breeding	2.5	3	3
Sheep and goats, breeding	4	5	6

k. Column 11 - enter depreciation method used. Most farmers will use the straight line on livestock since excess depreciation is recaptured when it is sold.

l. Column 12 - if straight line method is used, divide Column 9 by Column 10 (Column 9 ÷ Column 10 = Column 12).

m. Column 13A - (Note the numbering system on the Columns - 13, etc., refers to the same information each year and A, etc., refers to the year.) Enter depreciation allowed or allowable in prior years. This figure is obtained from a prior record book or income tax forms. It is on a per head basis.

n. Column 14A - enter the difference between Column 7 and Column 13A (Column 7 - Column 13A = 14A). Remember to stop depreciating when this figure equals salvage value (Column 8).

o. Column 16A - enter the number on hand.

p. Column 17A - (This column and Column 18 are on a per lot basis.) Multiply Column 13A times Column 16A (Column 13A x Column 16A = Column 17A).

q. Column 18A - multipy Column 14A times Column 16A (Column 14A x Column 16A = Column 18A).

The same procedure is used in future years except Column 15B - Sold or Died is used. In future years, Column 16 is the difference between the prior year Column 16 and this year's Column 15.

r. Column 19 - these are available to keep a current cash value. As an example, if a farmer purchased a group of cows in the fall of 1978 at $220 per head, they might have a remaining book value (Column 18) of $180 per head in December, 1980, but have an actual market value of $750 per head. The $750 figure times the number of head would be entered in Column 19. (If prices were dropping, the reverse procedure would be used.) This provides a more accurate picture of the business on the financial statement, encourages up-dating insurance coverage, and reflects total investment in the farm business for opportunity cost analysis.

2. Recording Depreciation

Distribute HO-1 to enrollees. Allow them ample time to make the first entry. Then, with the use of an overhead projector and TM-1 and TM-2, illustrate how to make the first entry. Complete the rest of the entries by allowing enrollees time to make an entry, then follow with your example. Examples of entries are as follows:

a. Assume a farmer had purchased 30 bred heifers in January, 1976, at $390 per head. The salvage value was estimated at $250, the life at seven years, and straight line method selected. The entry is being made in 1980. The entry would appear as follows:

FORM 14 **PAGE** **DEPRECIATION SCHEDULE:** ____________

LINE	Date Acq.	I.D. or Lot No.	Item Description	Head in Lot when Acq.	Investment Credit	New or Used	PER HEAD DATA						START OF 1980				
													Per Head		head	Per Lot	
							Cost Basis	Salvg. Value	Bal. for Depr.	Life	Method	Annual Depr. % or $	Depr. in Prior Years	Rem. Book Value	On Hand	Depr. in Prior Years	Rem. Book Value
1	4/76		Heifers	30	40	N	400	250	150	7	SL	30	120	180	30	3600	5400

Note: Column 13A is 80 since depreciation of $20 per year was allowed or allowable for four years (1976, 1977, 1978, and 1979). The other columns are probably self-explanatory.

b. Assume the farmer purchased an additional 20 bred heifers in January, 1978, at $450 per head. The salvage value was estimated at $150, the life at seven years, and straight line method selected. The entry is being made in 1980. The entry would appear as follows:

FORM 14 **PAGE** **DEPRECIATION SCHEDULE:** ____________

LINE	Date Acq.	I.D. or Lot No.	Item Description	Head in Lot when Acq.	Investment Credit	New or Used	PER HEAD DATA						START OF 19_ _				
													Per Head		head	Per Lot	
							Cost Basis	Salvg. Value	Bal. for Depr.	Life	Method	Annual Depr. % or $	Depr. in Prior Years	Rem. Book Value	On Hand	Depr. in Prior Years	Rem. Book Value
1	4/72		Heifers	30	–	N	300	150	150	5	SL	30	120	180	30	3600	5400
2	5/74		Heifers	20	374	N	400	150	250	5	SL	50	100	300	20	2000	6000

c. Assume a farmer purchased an angus bull in July, 1980, at $900 per head. The salvage value was estimated at $400, the life at seven years, and straight line method selected. The entry is being made in 1980. The entry would appear as follows:

ORM 14 **PAGE** **DEPRECIATION SCHEDLIVESTOCK FOR BREEDI**

	Date Acq.	I.D. or Lot No.	Item Description	Head in Lot when Acq.	Investment Credit	New or Used	PER HEAD DATA						END 19_ _					
													Per Head		Head		Per Lot	
							Cost Basis	Salvg. Value	Bal. for Depr.	Life	Method	Annual Depr. % or $	Depr. This Year	Rem. Book Value	Sold or Died	On Hand	Depr. This Year	Rem. Book Value
	4/72		Heifers	30	–	N	300	150	150	5	SL	30						
2	5/74		Heifers	20	374	N	400	150	250	5	SL	50						
	4/76		Angus Heifer	1	26	N	400	150	250	5	SL	50	34	366	-0-	1	34	366

d. Assume the above farmer brings the depreciation schedule up-to-date at the end of 1980. Three cows were sold during the year. The entry would appear as on the form below:

(See top of next page.)

FORM 14 PAGE ___ LIVESTOCK FOR BREEDING

LINE	Date Acq.	I.D. or Lot No.	Item Description	Head in Lot when Acq.	Investment Credit	Lot	END 19_ _						LINE
							Per Head		Head		Per Lot		
						Rem. Book Value	Depr. This Year	Rem. Book Value	Sold or Died	On Hand	Depr. This Year	Rem. Book Value	
1	4/72		Heifers	30	—	5400	30	150	3	27	810	4050	1
2	5/74		Heifers	20	374	6000	50	250	—	20	1000	5000	2
3	4/76		Angus Heifer	1	26		34	366	-0-	1	34	366	3

Note: The three cows sold were entered on Line 1 - first in - first out. Line 3, Column 13B is $36 since the bull was owned six months (71 ÷ 6/12 = $36).

e. Assume the farmer brought the depreciation schedule on the three groups up-to-date at the end of 1981. Two additional cows were sold or died during 1981. The entries would appear as follows:

FORM 15 PAGE DEPRECIATION SCHEDULE:..........

LINE	END 19..						END 19..						ENC		
	PER HEAD		HEAD		PER LOT		PER HEAD		HEAD		PER LOT		PER HEAD		HE
	Depr. This Year	Rem. Book Value	Sold or Died	On Hand	Depr. This Year	Rem. Book Value	Depr. This Year	Rem. Book Value	Sold or Died	On Hand	Depr. This Year	Rem. Book Value	Depr. This Year	Rem. Book Value	Sold or Died
1	-0-	150	2	25	-0-	3750									
2	50	200	—	20	1000	4000									
3	50	316	—	1	50	316									

3. Guidelines for Inventories

Distribute HO-4 to enrollees. Show TM-3 as you discuss this form. Note that the form is divided into Swine, Dairy, Beef, and Other. The "Other" can be used for sheep, horses, etc. If more than one of the "Other" enterprises are on a form, insert it in the place of Swine, Dairy, or Beef is they are not owned. Estimate values considering the following:

a. Breeding animals

(1) Purchased value at cost less depreciation

(2) Raised use a long time average for each class

b. Market animals value at current market price less cost of marketing.

Distribute HO-5 to enrollees. Show TM-4 as you discuss this form.

This form is probably self-explanatory. Remember to use current market price less cost of marketing for raised crops. Purchased items are inventoried at cost delivered to the farm. Lines 19 and 20 are for growing crops. As an example, if wheat was sown in October, the "costs" in sowing the wheat would be entered here. Quantity refers to acres and price per unit to "costs per acre."

4. Recording Inventories

   a. When making entries on Form 16, note that on Lines 1, 12, 25, and 37, the information comes from Forms 14 and 15. To determine the value of purchased breeding stock, the depreciable value is used. However, the weight is guessed by the farmer.

      Lines 2, 13, 26, and 30 are for raised breeding livestock. This value should remain constant for several years even though the market will fluctuate over time.

      You should make an example entry on TM-3 for the enrollees. The following page gives an example which you may want to use or obtain example figures from enrollees.

   b. When making example entries on TM-4, you will want to use realistic figures for your area. The following page gives an example which you may want to use. If not, secure realistic information from enrollees.

F. Group Discussion

Sufficient time should be allotted for enrollees to ask questions and discuss problems associated with the types of entries they will be making. Be sure that they feel competent in completing Forms 14, 15, 16, and 17.

Administer the accompanying examination to ascertain the level of knowledge in the areas of developing depreciation schedules for livestock and developing inventories.

G. Conclusions

Conclusions which may be reached include:

1. Purchased breeding livestock should be entered on a depreciation schedule to assist in claiming investment credit.

2. Salvage value for livestock is normally the "meat price."

3. Inventories for breeding livestock are somewhat stable.

4. Values for completing inventories for non-breeding livestock will fluctuate with the market.

5. Values for purchased feeds, stored grain, etc., are current market values.

6.

7.

8.

H. Announcements

Next meeting, we will be working with developing investment records for real estate.

I. Social

J. On the Farm Instruction

When visiting enrollees following this lesson, be sure that Forms 14, 15, 16, and 17 are completed. If they are not, assist the farmer in bringing them up-to-date.

FORM 14 PAGE DEPRECIATION SCHEDULE: ______________ LIVESTOCK FOR BREEDING

LINE	Date Acq.	I.D. or Lot No.	Item Description	Head in Lot when Acq.	Investment Credit	New or Used	PER HEAD DATA						START OF 19_ _					END 19_ _						LINE
													Per Head		head	Per Lot		Per Head		Head		Per Lot		
							Cost Basis	Salvg. Value	Bal. for Depr.	Life	Method	Annual Depr. % or $	Depr. in Prior Years	Rem. Book Value	On Hand	Depr. in Prior Years	Rem. Book Value	Depr. This Year	Rem. Book Value	Sold or Died	On Hand	Depr. This Year	Rem. Book Value	
1																								1
2																								2
3																								3
4																								4
5																								5
6																								6
7																								7
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9																								9
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20																								20
21																								21
22																								22
23																								23
24																								24
25																								25
	1	2	3	4	5	6	7	8	9	10	11	12	13A	14B	16A	17A	18A	13B	14B	15B	16B	17B	18B	

H0-1

FORM 15 PAGE DEPRECIATION SCHEDULE.................. LIVESTOCK FOR BREEDING (con't)

LINE	END 19..						END 19..						END 19..						ESTIMATED CURRENT CASH VALUE					LINE
	PER HEAD		HEAD		PER LOT		PER HEAD		HEAD		PER LOT		PER HEAD		HEAD		PER LOT		PER LOT					
	Depr. This Year	Rem. Book Value	Sold or Died	On Hand	Depr. This Year	Rem. Book Value	Depr. This Year	Rem. Book Value	Sold or Died	On Hand	Depr. This Year	Rem. Book Value	Depr. This Year	Rem. Book Value	Sold or Died	On Hand	Depr. This Year	Rem. Book Value	START 19..	END 19..	END 19..	END 19..	END 19..	
1																								1
2																								2
3																								3
4																								4
5																								5
6																								6
7																								7
8																								8
9																								9
10																								10
11																								11
12																								12
13																								13
14																								14
15																								15
16																								16
17																								17
18																								18
19																								19
20																								20
21																								21
22																								22
23																								23
24																								24
25																								25
	13C	14C	15C	16C	17C	18C	13D	14D	15D	16D	17D	18D	13E	14E	15E	16E	17E	18E	19A	19B	19C	19D	19E	

HO-2

SAMPLE ENTRIES

1. Assume a farmer had purchased 30 bred heifers in January, 1976, at $390 per head. The salvage value was estimated at $250, the life at seven years, and straight line method selected. The entry is being made in 1980.

2. Assume the farmer purchased an additional 20 bred heifers in January, 1978, at $450 per head. The salvage value was estimated at $150, the life at seven years, and straight line method selected. The entry is being made in 1980.

3. Assume a farmer purchased an angus bull in July, 1980, at $900 per head. The salvage value was estimated at $400, the life at seven years, and straight line method selected. The entry is being made in 1980.

4. Assume the above farmer brings the depreciation schedule up-to-date at the end of 1980. Three cows were sold during the year.

5. Assume the farmer brought the depreciation schedule on the three groups up-to-date at the end of 1981. Two additional cows were sold or died during 1981.

INVENTORY OF LIVESTOCK

LINE		START 19__				END 19__				END 19__				END 19__				END 19__				LINE
		NO. HEAD	TOTAL WT.	PRICE PER UNIT	TOTAL VALUE	NO. HEAD	TOTAL WT.	PRICE PER UNIT	TOTAL VALUE	NO. HEAD	TOTAL WT.	PRICE PER UNIT	TOTAL VALUE	NO. HEAD	TOTAL WT	PRICE PER UNIT	TOTAL VALUE	NO. HEAD	TOTAL WT.	PRICE PER UNIT	TOTAL VALUE	
	SWINE																					
1	Purch. Breeding F. 14/15																					1
	Rsd. Breeding - Sows																					2
	- Gilts																					3
4	- Boars																					4
5	TOTAL BREEDING SWINE																					5
6	Hogs																					6
7	Pigs																					7
8	Gilts																					8
9	Boars																					9
10	TOT. NON-BREED. SWINE																					10
11	TOTAL SWINE																					11
	BEEF																					
12	Purch. Breeding F. 14/15																					12
13	Rsd. Breeding - Cows																					13
14	- Heifers																					14
15	- Bulls																					15
16	TOTAL BREEDING BEEF																					16
17	1-2 years Heifers																					17
18	Bulls																					18
19	weaned, Heifers																					19
	Bulls																					20
	Steers																					21
22	Sucking Calves																					22
23	TOTAL NON-BREED. BEEF																					23
24	TOTAL BEEF																					24
	DAIRY																					
25	Purch. Breeding F. 14/15																					25
26	Rsd. Breeding - Cows																					26
27	Bred Heifers																					27
28	Open Heifers																					28
29	Bulls																					29
30	TOTAL BREEDING DAIRY																					30
31	Heifers																					31
32	Bulls																					32
33	Steers																					33
34	Calves																					34
35	TOT. NON-BREED. DAIRY																					35
36	TOTAL DAIRY																					36
	OTHER																					
																						37
																						38
39	TOT. BREEDING																					39
40																						40
41																						41
42	TOT. NON-BREEDING																					42
43	TOTAL																					43
44	FORM TOTAL																					44
45	TOTAL RAISED BREEDING																					45

171

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C80-4

[redacted]RM[redacted] [redacted] [redacted]VE[redacted]OR[redacted]F [redacted]D, [redacted]TORED & [redacted]ROWING CROPS AND CROP & LIVESTOCK SUPPLIES

LINE		START 19__			END 19__			END 19__			END 19__			END 19__			LINE
		QUANT.	PRICE PER UNIT	TOTAL VALUE	QUANT.	PRICE PER UNIT	TOTAL VALUE	QUANT.	PRICE PER UNIT	TOTAL VALUE	QUANT.	PRICE PER UNIT	TOTAL VALUE	QUANT.	PRICE PER UNIT	TOTAL VALUE	
	PURCHASED FEEDS																
1	Prepared Feeds																1
2																	2
3	Protein Supplements																3
4																	4
5	Vitamins, Minerals																5
6																	6
7	TOTAL PURCHASED FEEDS																7
	STORED CROPS																
8	Corn																8
9	Wheat																9
10	Grain Sorghum																10
11	Soybeans																11
12	Cotton																12
13	Silage																13
14																	14
15	Hay																15
16																	16
17	Straw																17
18	TOTAL STORED CROPS																18
	GROWING CROPS $ invested																
19																	19
20																	20
21	TOTAL GROWING CROPS																21
	CROP SUPPLIES																
22	Seeds																22
23																	23
24	Fertilizer, Lime Applied																24
25	Fertilizer Stored																25
26																	26
27	Herbicides																27
28																	28
29	Insecticides																29
30	Fungicides																30
31	Twine, Etc.																31
32	Fuel																32
33																	33
34	Oil																34
35	Grease																35
36	TOTAL CROP SUPPLIES																36
	LIVESTOCK SUPPLIES																
37	Veterinary Supplies																37
38																	38
39	Bedding																39
40	Other Supplies																40
41																	41
42																	42
43	TOTAL LIVESTOCK SUPPL.																43
44	FORM TOTAL																44

HO-5

FORM 14 PAGE

DEPRECIATION SCHEDULE: ____________ LIVESTOCK FOR BREEDING

							PER HEAD DATA						START OF 19_ _					END 19_ _						
													Per Head		head	Per Lot		Per Head		Head		Per Lot		
LINE	Date Acq.	I.D. or Lot No.	Item Description	Head in Lot when Acq.	Investment Credit	New or Used	Cost Basis	Salvg. Value	Bal. for Depr.	Life	Method	Annual Depr. % or $	Depr. in Prior Years	Rem. Book Value	On Hand	Depr. in Prior Years	Rem. Book Value	Depr. This Year	Rem. Book Value	Sold or Died	On Hand	Depr. This Year	Rem. Book Value	LINE
1																								1
2																								2
3																								3
4																								4
5																								5
6																								6
7																								7
8																								8
9																								9
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22																								22
23																								23
24																								24
25																								25
	1	2	3	4	5	6	7	8	9	10	11	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	

FORM 15 PAGE DEPRECIATION SCHEDULE..................LIVESTOCK FOR BREEDING (con't)

LINE	END 19..						END 19..						END 19..						ESTIMATED CURRENT CASH VALUE					LINE
	PER HEAD		HEAD		PER LOT		PER HEAD		HEAD		PER LOT		PER HEAD		HEAD		PER LOT		PER LOT					
	Depr. This Year	Rem. Book Value	Sold or Died	On Hand	Depr. This Year	Rem. Book Value	Depr. This Year	Rem. Book Value	Sold or Died	On Hand	Depr. This Year	Rem. Book Value	Depr. This Year	Rem. Book Value	Sold or Died	On Hand	Depr. This Year	Rem. Book Value	START 19..	END 19..	END 19..	END 19..	END 19..	
1																								1
2																								2
3																								3
4																								4
5																								5
6																								6
7																								7
8																								8
9																								9
10																								10
11																								11
12																								12
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16																								16
17																								17
18																								18
19																								19
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21																								21
22																								22
23																								23
24																								24
25																								25
	13C	14C	15C	16C	17C	18C	13D	14D	15D	16D	17D	18D	13E	14E	15E	16E	17E	18E	19A	19B	19C	19D	19E	

TM-2

INVENTORY OF LIVESTOCK

LINE		START 1980				END 1981				END 19__				END 19__				END 19__				LINE
		NO. HEAD	TOTAL WT.	PRICE PER UNIT	TOTAL VALUE	NO. HEAD	TOTAL WT.	PRICE PER UNIT	TOTAL VALUE	NO. HEAD	TOTAL WT.	PRICE PER UNIT	TOTAL VALUE	NO. HEAD	TOTAL WT	PRICE PER UNIT	TOTAL VALUE	NO. HEAD	TOTAL WT.	PRICE PER UNIT	TOTAL VALUE	LINE
	SWINE																					
1	Purch. Breeding F. 14/15	61	24950		9780	41	16300		6030													1
	Rad. Breeding - Sows					20	7500															2
	- Gilts																					3
4	- Boars																					4
5	TOTAL BREEDING SWINE	61	24950		9780	61	23800		6030													5
6	Hogs	120	9000	30	2700	350	35000	.28	9800													6
7	Pigs																					7
8	Gilts																					8
9	Boars																					9
10	TOT. NON-BREED. SWINE	120	9000		2700	350	35000		9800													10
11	TOTAL SWINE	181	33950		12480	411	[illegible]		15830													11
	BEEF																					
12	Purch. Breeding F. 14/15	50	55000		23750	49	53700		21480													12
13	Rad. Breeding - Cows					10	10000	400	4000													13
14	- Heifers																					14
15	- Bulls																					15
16	TOTAL BREEDING BEEF	50	55000		23750	59	63700		25480													16
17	1-2 years Heifers																					17
18	Bulls																					18
19	weaned, Heifers	10	8000	.50	4000	10	7000	.46	3220													19
	Bulls																					20
	Steers	24	9500	.50	4750	22	8800	.48	4224													21
22	Sucking Calves																					22
23	TOTAL NON-BREED. BEEF	34	17500		8750	32	15800		7444													23
24	TOTAL BEEF	84	72500		32500	91	79500		32924													24
	DAIRY																					
25	Purch. Breeding F. 14/15																					25
26	Rad. Breeding - Cows																					26
27	Bred Heifers																					27
28	Open Heifers																					28
29	Bulls																					29
30	TOTAL BREEDING DAIRY																					30
31	Heifers																					31
32	Bulls																					32
33	Steers																					33
34	Calves																					34
35	TOT. NON-BREED. DAIRY																					35
36	TOTAL DAIRY																					36
	OTHER																					
																						37
																						38
39	TOT. BREEDING																					39
40	179																					40
41																						41
42	TOT. NON-BREEDING																					42
43	TOTAL																					43
44	FORM TOTAL																					44
45	TOTAL RAISED BREEDING																					45

IM-30

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ORM 17 INVENTORY OF FEED, STORED & GROWING CROPS AND CROP & LIVESTOCK SUPPLIES

LINE		START 19__			END 19__			END 19__			END 19__			END 19__			LINE
		QUANT.	PRICE PER UNIT	TOTAL VALUE	QUANT.	PRICE PER UNIT	TOTAL VALUE	QUANT.	PRICE PER UNIT	TOTAL VALUE	QUANT.	PRICE PER UNIT	TOTAL VALUE	QUANT.	PRICE PER UNIT	TOTAL VALUE	
	PURCHASED FEEDS																
1	Prepared Feeds																1
2																	2
3	Protein Supplements	5 ton	400	2,000	15 ton	410	6150										3
4																	4
5	Vitamins, Minerals																5
6																	6
7	TOTAL PURCHASED FEEDS			2,000			6150										7
	STORED CROPS																
8	Corn	10,000	2.10	21000	12000	2.00	24000										8
9	Wheat	1200	4.00	4800	1800	3.80	6840										9
10	Grain Sorghum	1000	3.20	32.00													10
11	Soybeans	2,500	6.00	15000	3000	6.40	192.00										11
12	Cotton																12
13	Silage																13
14																	14
15	Hay																15
16																	16
17	Straw																17
18	TOTAL STORED CROPS			44000			50040										18
	GROWING CROPS $ invested																
19																	19
20																	20
21	TOTAL GROWING CROPS																21
	CROP SUPPLIES																
22	Seeds																22
23																	23
24	Fertilizer, Lime Applied																24
25	Fertilizer Stored																25
26																	26
27	Herbicides																27
28																	28
29	Insecticides																29
30	Fungicides																30
31	Twine, Etc.																31
32	Fuel	500g.	.85	42.5	450	1.05	473										32
33																	33
34	Oil																34
35	Grease																35
36	TOTAL CROP SUPPLIES			42.5			473										36
	LIVESTOCK SUPPLIES																
37	Veterinary Supplies																37
38																	38
39	Bedding	500	1.50	750	100	2.00	200										39
40	Other Supplies																40
41																	41
42																	42
43	TOTAL LIVESTOCK SUPPL..			750			200										43
44	FORM TOTAL			45175			50713										44

TM-4

Farm Business Management

and Analysis Program

Lesson 6 - Quiz

Complete the following forms for the items partially recorded. Assume investment credit for each item.

FORM 14 **PAGE**

DEPRECIATION SCHEDULE:________________ LIVESTOCK FOR BREEDING

							PER HEAD DATA						START OF 1979					END 1979						
													Per Head		head	Per Lot		Per Head		Head		Per Lot		
LINE	Date Acq.	I.D. or Lot No.	Item Description	Head in Lot when Acq.	Investment Credit	New or Used	Cost Basis	Salvg. Value	Bal. for Depr.	Life	Method	Annual Depr. % or $	Depr. in Prior Years	Rem. Book Value	On Hand	Depr. In Prior Years	Rem. Book Value	Depr. This Year	Rem. Book Value	Sold or Died	On Hand	Depr. This Year	Rem. Book Value	LINE
1	3/79		Heifers	20	1750	N	700	400	300	7	S	43						36	664	0	25	900	16600	1
2	7/79		W.F. Heifers	10	650	N	650	400	250	7	S	36						18	632	0	10	180	6320	2
3	2/80		Angus Cows	15		U	800	450		5	S													3
4	4/80		W.F. Bulls	2		N	1200	500		5	S													4
5																								5
6																								6
7																								7
8																								8
9																								9
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22																								22
23																								23
24																								24
25																								25
	1	2	3	4	5	6	7	8	9	10	11	12	13A	14B	16A	17A	18A	13B	14B	15B	16B	17B	18B	

FORM 13 PAGE DEPRECIATION SCHEDULE.................. LIVESTOCK FOR BREEDING (con't)

LINE	END 1980						END 19..						END 19..						ESTIMATED CURRENT CASH VALUE					LINE
	PER HEAD		HEAD		PER LOT		PER HEAD		HEAD		PER LOT		PER HEAD		HEAD		PER LOT		PER LOT					
	Depr. This Year	Rem. Book Value	Sold or Died	On Hand	Depr. This Year	Rem. Book Value	Depr. This Year	Rem. Book Value	Sold or Died	On Hand	Depr. This Year	Rem. Book Value	Depr. This Year	Rem. Book Value	Sold or Died	On Hand	Depr. This Year	Rem. Book Value	START 19..	END 19..	END 19..	END 19..	END 19..	
1			2																					1
2			0																					2
3																								3
4																								4
5																								5
6																								6
7																								7
8																								8
9																								9
10																								10
11																								11
12																								12
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17																								17
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19																								19
20																								20
21																								21
22																								22
23																								23
24																								24
25																								25
	13C	14C	15C	16C	17C	18C	13D	14D	15D	16D	17D	18D	13E	14E	15E	16E	17E	18E	19A	19B	19C	19D	19E	

Farm Business Management

and Analysis Program

Unit I - Establishing a Farm Accounting System

Lesson 7 - Developing an Investment Record for Real Estate

A. Review

The previous lesson, Developing Depreciation Schedules for Livestock and Developing Inventories, should be reviewed. List all conclusions reached at your last meeting. Possible conclusions may have included:

1. Purchased breeding livestock should be entered on a depreciation schedule to assist in claiming investment credit.
2. Salvage value for livestock is normally the "meat price."
3. Values for completing inventories for breeding livestock are somewhat stable.
4. Values for completing inventories for non-breeding livestock will fluctuate with the market.
5. Values for purchased feeds, stored grain, etc., are current market values.
6.
7.
8.

B. Objective

To complete an investment record for real estate.

C. Motivation

1. Ask enrollees the problems which they or someonw else they know has encountered when trying to sell real estate after ownership for a period of years. Attention should be focused on the basis paid for the real estate many years before. The importance of this is in the amount of capital gains which is paid.
2. Administer the accompanying quiz as a motivating experience for enrollees.

D. Key Points

Key points which will be accomplished tonight are as follows:

1. Guidelines for completing forms for an investment record for real estate.
2. Recording depreciation schedules and investment records for real estate.

E. Introduction of Information

1. Guidelines

Although space is provided on each form for recording information on three different farms, most farmers that buy an additional farm find it simpler to have one Form 18 for each farm. Distribute HO-1 to enrollees. You may want to show TM-1 while discussing the different areas on this form.

Buildings as barns, machine shed, grain bins, etc., are listed on Lines 1-11. The owner's dwelling goes on Line 31. A house used for employees or rented out would be entered on 1-11. Lines 15-21 are for fences, tile waterways and drains, etc. It is suggested that when a farm is purchased, the following procedure be used in setting up Form 18:

a. Enter the price paid for the entire farm (land, buildings, house, etc.) on Line 32, Column 4. Next, you should separate land cost from all other costs. The problem becomes one of deciding how much of the purchase price is for the land, how much for the owner's dwelling, etc. The following suggestions are offered:

    (1) Value buildings at the insured value, plus 20%. (Most insurance companies insure for 80% of the value.)

    (2) Value items as fences at cost less amount depreciated. As an example, it it cost $900/quarter to build a fence and a farm has 2½ miles of fence, the fence has 50% of its life remaining, value it at $4,500 ($900 x 4 = $3,600 per mile x 2¼ miles x 50% life = $4,500).

b. Enter the life in Column 5 for items on Lines 1-11. IRS guidelines on buildings are 25 years with a lower limit of 20 years and upper of 30 years. You should recognize that some buildings will not last this long before becoming unusable or obsolete. A more realistic life on a hog finishing floor might be 10-15 years. When a farm is purchased, estimate the life considering IRS guidelines, condition of the buildings, amount of major repair as roofs previously done, etc.

c. Take investment credit on equipment and facilities that qualify and enter in Column 3. Fences, pump, grain bins, and buildings, which are an integral part of production as would be the finishing floor or farrowing house, qualify. A machine shed and cattle barn do not. Structures used for storage of fungible products (stored in bulk and move in and out) as hay barns, also qualify. Investment credit needs to be claimed in the year in which the farm is purchased. Qualified items built later have investment credit claimed in the year built. Note: if a farmer builds a fence and does all the labor, the total cost basis is the amount of cash spent - no charge is included for labor nor for posts cut on the farm, etc.

d. Enter the method of depreciation used in Column 6. Straight Line is required on used buildings. 150% Declining Balance can be used on new buildings.

e. A math check can be made by subtracting Column 8B from 9A on Lines 12 and 22 and compare with Column 9B.

f. Line 35 should reflect a conservative market value for the total farm. Most farmers and lenders prefer to update this once every four years or so.

2. Recording Entries

Distribute HO-2 to enrollees and let them read the example. Then, with their assistance, complete TM-1. It may look like the following: (See Page 4.)

F. Group Discussion

Ample time should be allotted for enrollees to discuss problems associated with the types of entries they will be making. They should be competent in completing Form 18 for all land purchased recently.

Administer the accompanying examination to ascertain the level of knowledge in the area of developing an investment record for real estate.

G. Conclusions

Conclusions which may be reached include:

1. Depreciable items need to be separated from non-depreciable items when purchases are made.
2. Depreciable items need to be entered to record investment credit and depreciation.
3. Prices paid for real estate need to be recorded so that the basis will be known if sold in the future.

FORM 18 **PAGE**

DEPRECIATION SCHEDULE AND INVESTMENT RECORD : REAL ESTATE

LINE	DATE ACQUIRED	ITEM DESCRIPTION (kind, size, location) lines 1 to 11: Buildings, Fences, Etc. lines 15 to 21: Land Improvements lines 25 to 27: Land	INVESTMENT CREDIT	TOTAL COST BASIS	LIFE	METHOD	Annual Rate On % or $	Depr. Taken in Prior Years	END 1980			END 19__		END 19__		END 19__		LINE
									Rem. Value at Start of Year	Depr. This Year	Rem. Book Value	Depr. This Year	Rem. Book Value	Depr. This Year	Rem. Book Value	Depr. This Year	Rem. Book Value	
1	4/80	Hog finishing floor	1200	12000	15	S	800		12000	800	11200							1
2	4/80	Farrowing House	2400	24000	15	S	1600		24000	1600	22400							2
3	4/80	Machine Shed		4800	20	S	240		4800	240	4560							3
4	4/80	Grain Bin	240	2400	20	S	120		2400	120	2280							4
5	1/80	Cattle Shed		3600	20	S	180		3600	180	3420							5
6	4/80	2½ miles Fence	450	4500	20	S	225		4500	225	4275							6
7																		7
8																		8
9																		9
10																		10
11																		11
12	Total Buildings- this page, line 1 to 11			51300					51300	3165	48135							12
13	Total Buildings-previous page, line 14																	13
14	Total Buildings- Lines 12 plus 13			51300					51300	3165	48135							14
15																		15
16																		16
17																		17
18																		18
19																		19
20																		20
21																		21
22	Total Land Improvements line 15 to 21 this page																	22
23	Total Land Imp'vmts-prev. page, line 24																	23
24	Total Land Improvements - line 22 plus 23																	24
25		Land _ _ _ _ _ Acres - original cost		92700					92700		92700							25
26		Land _ _ _ _ _ _ Acres - original cost																26
27		Land _ _ _ _ _ _ Acres - original cost																27
28	Total Land Value-this page, lines 25 to 27			92700					92700		92700							28
29	Total Land Value - previous page, line 30																	29
30	Total Land Value line 28 plus 29			92700					92700		92700							30
31	OWNER'S DWELLING			36000					36000		36000							32
32	Total Book Value - this page, ll. 12+22+28+31			180000					180000		176835							32
33	Total Book Value of Farm ll. 32 plus 33			180000					180000		176835							33
34	Total Book Value previous page, line 34																	34
35	ESTIMATED CURRENT MARKET VALUE								180000		188000							35

4.

5.

6.

H. Announcements

Next meeting, we will be working with keeping enterprise records.

I. Social

J. On the Farm Instruction

When visiting enrolles following this lesson, be sure that Form 18 is completed. If the farmer needs assistance, you will want to assist him in completing this form.

FORM 18 PAGE

DEPRECIATION SCHEDULE AND INVESTMENT RECORD : REAL ESTATE

LINE	DATE ACQUIRED	ITEM DESCRIPTION (kind, size, location) lines 1 to 11: Buildings, Fences, Etc. lines 15 to 21: Land Improvements lines 25 to 27: Land	INVESTMENT CREDIT	TOTAL COST BASIS	LIFE	METHOD	Annual Rate % or $	Depr. Taken in Prior Years	END 19_ _			END 19_ _		END 19_ _		END 19_ _		LINE
									Rem. Value at Start of Year	Depr. This Year	Rem. Book Value	Depr. This Year	Rem. Book Value	Depr. This Year	Rem. Book Value	Depr. This Year	Rem. Book Value	
1																		1
2																		2
3																		3
4																		4
5																		5
6																		6
7																		7
8																		8
9																		9
10																		10
11																		11
12		Total Buildings- this page, line 1 to 11																12
13		Total Buildings-previous page, line 14																13
14		Total Buildings- Lines 12 plus 13																14
15																		15
16																		16
17																		17
18																		18
19																		19
20																		20
21																		21
22		Total Land Improvements line 15 to 21 this page																22
23		Total Land Imp'vmts-prev. page, line 24																23
24		Total Land Improvements - line 22 plus 23																24
25		Land_ _ _ _ _ _ Acres-original cost																25
26		Land_ _ _ _ _ _ Acres-original cost																26
27		Land_ _ _ _ _ _ Acres-original cost																27
28		Total Land Value-this page, lines 25 to 27																28
29		Total Land Value-previous page, line 30																29
30		Total Land Value line 28 plus 29																30
31		OWNER'S DWELLING																32
32		Total Book Value-this page, ll. 12+22+28+31																32
33		Total Book Value of Farm ll. 32 plus 33																33
34		Total Book Value previous page, line 34																34
35		ESTIMATED CURRENT MARKET VALUE																35

Example Purchase

A farmer bought 120 acres with a house, hog finishing floor, farrowing house, machine shed, grain bin, cattle shed, and 2½ miles of fence for $1,500 per acre or $180,000 on January 1, 1980.

The finishing floor is estimated at $12,000, farrowing house at $24,000, machine shed at $4,800, grain bin at $2,400, cattle shed at $3,600, fence at $4,500 and house at $36,000.

Complete a depreciation schedule for the buildings and compute the land value for the 120 acres.

FORM 18 PAGE DEPRECIATION SCHEDULE AND INVESTMENT RECORD : REAL ESTATE

LINE	DATE ACQUIRED	ITEM DESCRIPTION (kind, size, location) lines 1 to 11: Buildings, Fences, Etc. lines 15 to 21: Land Improvements lines 25 to 27: Land	INVESTMENT CREDIT	TOTAL COST BASIS	LIFE	METHOD	Annual Rate % or $	Depr. Taken in Prior Years	END 19_ _			END 19_ _		END 19_ _		END 19_ _		LINE
									Rem. Value at Start of Year	Depr. This Year	Rem. Book Value	Depr. This Year	Rem. Book Value	Depr. This Year	Rem. Book Value	Depr. This Year	Rem. Book Value	
1																		1
2																		2
3																		3
4																		4
5																		5
6																		6
7																		7
8																		8
9																		9
10																		10
11																		11
12	Total Buildings- this page, line 1 to 11																	12
13	Total Buildings-previous page, line 14																	13
14	Total Buildings- Lines 12 plus 13																	14
15																		15
16																		16
17																		17
18																		18
19																		19
20																		20
21																		21
22	Total Land Improvements line 15 to 21 this page																	22
23	Total Land Imp'vmts-prev. page, line 24																	23
24	Total Land Improvements - line 22 plus 23																	24
25		Land_ _ _ _ _ _ Acres-original cost																25
26		Land_ _ _ _ _ _ Acres-original cost																26
27		Land_ _ _ _ _ _ Acres-original cost																27
28	Total Land Value-this page, lines 25 to 27																	28
29	Total Land Value-previous page, line 30																	29
30	Total Land Value line 28 plus 29																	30
31	9, OWNER'S DWELLING																	32
32	Total Book Value-this page, ll. 12+22+28+31																	32
33	Total Book Value of Farm ll. 32 plus 33																	33
34	Total Book Value previous page, line 34																	34
35	ESTIMATED CURRENT MARKET VALUE																	35

TM-1 198

Farm Business Management

and Analysis Program

Unit I - Establishing a Farm Accounting System

Lesson 8 - Keeping Enterprise Records

A. Review

The previous lesson, Developing an Investment Record for Real Estate, should be reviewed. List all conclusions reached at your last meeting. Possible conclusions may have included:

1. Depreciable items need to be separated from non-depreciable items when purchases are made.
2. Depreciable items need to be entered to record investment credit and depreciation.
3. Prices paid for real estate need to be recorded so that the basis will be known if sold in the future.
4.
5.
6.

B. Objective

To complete mid-year crop and feed useage forms.

C. Motivation

Tell a story about the man that made $20,000 profit last year but would have made $25,000 if he had not raised "bobby" calves. Since he had not kept enterprise records, he had no idea that raising "bobby" calves was a problem.

Other similar examples can be used, but the importance of good, accurate enterprise records should be emphasized.

D. Key Points

Key points which will be accomplished are as follows:

1. Identify items that need to be recorded to keep good enterprise records.
2. Recording crop and livestock enterprise records.

E. Introduction of Information

1. Guidelines

Good enterprise records are essential for a farmer to know where money is being made or lost. Form 5 is used to record receipts by enterprise. Form 10 is used to record expenditures by enterprise (see Lesson 3). However, there is more to good enterprise records than receipts and expenditures.

a. Livestock

Distribute HO-1 to enrollees and with the use of an overhead projector, display TM-1 as you discuss the areas on this form.

(1) Column 1 - the amount of protein or prepared feed fed in pounds.

(2) Column 2 - the cost of proteins or prepared feeds.

(3) Column 3 - bushels of corn feed.

(4) Column 4 - total cost for corn (this is not price/bushel).

(5) Columns 5 and 7 - the amount of other feed grains fed.

(6) Columns 6 and 8 - total cost of other feed grains fed.

(Note: Columns 5 and 6 might be for milo and Columns 7 and 8 might be for barley.)

(7) Column 9 - tons of hay fed.

(8) Column 10 - total cost of hay.

(9) Column 11 - tons sileage fed.

(10) Column 12 - total cost of sileage.

(11) Column 13 - number of days pasture.

(12) Column 14 - number of animal units on pasture.

(13) Column 15 - cost of veterinary and medicine including wormer.

(14) Column 16 - cost of other livestock expenses including breeding and registration fees.

(15) Columns 17 and 17A - number of animals dying.

(16) Columns 18 and 18A - weight of animals dying.

(17) Columns 19 and 19A - average number of females in the herd. (This includes gilts and heifers after they reach market weight.)

(18) Columns 20 and 20A - number of females bred during the month.

(19) Columns 21 and 21A - number of births (one litter would be counted as one).

(20) Column 22 and 22A - number of offspring born.

(21) Columns 23 and 23A - number of animals weaned.

b. Grain Crops

Distribute HO-2 to enrollees. You may want to show TM-2 while discussing the areas on this form.

(1) Column 1 - short descriptive phrase to help identify fields (Jones farm).

(2) Column 2 - field number so that records may be kept by individuals fields. This column is optional.

(3) Column 3 - number of owned acres for a particular crop or in a particular field.

(4) Column 4 - number of rented acres for a particular crop or field.

(5) Column 5 - number of acres total. This figure would equal Column 3 and Column 4 if only one entry is made per enterprise.

(6) Column 6 - yield per acre in bushels or hundred weight for milo.

(7) Column 7 - total quantity produced in bushels or hundred weight. Column 7 = Column 8 + Column 9 if only one entry is made per enterprise.

(8) Column 8 - total operator's share produced.

(9) Column 9 - total landlord's share produced.

(10) Column 10 - cost of fertilizer and lime.

(11) Column 11 - cost of crop chemicals, includes herbicides and insecticides.

(12) Column 12 - cost of seed.

(13) Column 13 - cost of other crop supplies.

c. Forage Crops

Distribute HO-3 to enrollees. You may want to show TM-3 while discussing the areas on this form.

(1) Column 1 - short descriptive phrase to help identify fields.

(2) Column 2 - field number so that records can be kept by individual fields.

(3) Column 3 - number of owned acres for a particular crop as in a particular field.

(4) Column 4 - number of rented acres for a particular crop or field.

(5) Column 5 - number of total acres. This figure would equal Column 3 and Column 4 if only one entry is made per enterprise.

(6) Column 6 - yield per acre in tons.

(7) Column 7 - total quantity produced (tons). Column 7 = Column 8 + Column 9 if only one entry is made per enterprise.

(8) Column 8 - total operator's share produced (tons).

(9) Column 9 - total landlord's share produced (tons).

(10) Column 10 - cost of fertilizer and lime.

(11) Column 11 - cost of crop chemicals; includes herbicides and insecticides.

(12) Column 12 - cost of seed.

(13) Column 13 - cost of other crop supplies.

(14) Column 14 - basic classifications of land by groups.

(15) Column 15 - number of acres owned in each category.

(16) Column 16 - number of acres rented in each category.

(17) Column 17 - total number of acres by category and total.

(18) Column 18 - value per acre by each category.

(19) Column 19 - total value of owned land by category.

(20) Column 20 - total value of rented land by category.

(21) Column 21 - total value of land in the farming operation.

2. Recording Crop and Livestock Records

Distribute HO-4 to enrollees. Allow them ample time to begin making entries on HO-1, HO-2 and HO-3. As they finish, use TM-1, TM-2 and TM-3 to illustrate how the entries may be made. Two additional HO-1's should be distributed.

The following are examples of entries on HO-1, HO-2 and HO-3. (See pages 6-10.)

F. Group Discussion

Sufficient time should be allotted for enrollees to ask questions and discuss other types of entries which they may be making. Be sure that the farmers feel confident in making entries for their farms.

G. Conclusions

Conclusions which may be reached include:

1. Good enterprise records are essential to identify low profit enterprises.
2. Feed raised as well as feed purchased should be recorded for accurate analysis.
3. Enterprise records kept monthly are necessary.
4. "Barn Cards" may be necessary to obtain good information.
5.
6.
7.

H. Announcements

Next meeting, we will be working with mid-year checks on cash flows.

I. Social

J. On the Farm Instruction

When visiting enrollees following this lesson, be sure that Forms 31, 32 and 33 are up-to-date. If they are not, provide assistance to the farmer to complete these forms.

Livestock Hogs - Lot 5 — Form 31

ENTERPRISE DATA

FEED RECORD

MO	PROTEINS		GRAINS						ROUGHAGE						VET & MED	OTHER LIVESTOCK EXP.
			CORN						HAY		SILAGE		PASTURE			
	AMT	$	Bu	$	Amt	$	Amt	$	TONS	$	TONS	$	DAYS	UNITS	$	$
JAN																
FEB																
MAR																
APR																
MAY																
JUN																
JUL																
AUG																
SEPT																
OCT	4.000	600	179	392.85											40.50	
NOV																
DEC																
TOTAL																

Mo.	DEATH LOSS		BREEDING RECORD					Mo	DEATH LOSS		BREEDING RECORD				
	NO	WT.	No. F IN HERD	No F BRED	No. OF BIRTHS	No BORN	No WEANED		No	WT	No. F IN HERD	No F BRED	No OF BIRTHS	No BORN	No WEANED
JAN.								JUL.							
FEB.								AUG.							
MAR.								SEPT.							
APR.								OCT.	0	0	—	—	—	—	—
MAY.								NOV.							
JUN.								DEC.							

REFERENCES

LIVESTOCK **Sows** FORM 31

ENTERPRISE DATA

MO	FEED RECORD														VET & MED	OTHER LIVESTOCK EXP.
	PROTEINS		GRAINS						ROUGHAGE							
			CORN						HAY		SILAGE		PASTURE			
	AMT	$	Bu	$	Amt	$	Amt	$	TONS	$	TONS	$	DAYS	UNITS	$	$
JAN																
FEB																
MAR																
APR																
MAY																
JUN																
JUL																
AUG																
SEPT																
OCT	4000	800													16	
NOV																
DEC																
TOTAL																

Mo.	DEATH LOSS		BREEDING RECORD					Mo	DEATH LOSS		BREEDING RECORD				
	NO	WT.	No. F IN HERD	No F BRED	No. OF BIRTHS	No BORN	No WEANED		No	WT	No. F IN HERD	No F BRED	No OF BIRTHS	No BORN	No WEANED
JAN.								JUL.							
FEB.								AUG.							
MAR.								SEPT.							
APR.								OCT.	* 0	0	20	10	10	87	0
MAY.								NOV.							
JUN.								DEC.							

REFERENCES

* Notice death loss in the farrowing house is not recorded as such. This figure can be calculated when the pigs are weaned.

LIVESTOCK CATTLE

ENTERPRISE DATA

form 31

FEED RECORD

MO	PROTEINS AMT	PROTEINS $	GRAINS CORN Bu	GRAINS CORN $	GRAINS Amt	GRAINS $	GRAINS Amt	GRAINS $	ROUGHAGE HAY TONS	ROUGHAGE HAY $	ROUGHAGE SILAGE TONS	ROUGHAGE SILAGE $	ROUGHAGE PASTURE DAYS	ROUGHAGE PASTURE UNITS	VET & MED $	OTHER LIVESTO EXP. $
JAN																
FEB																
MAR																
APR																
MAY																
JUN																
JUL																
AUG																
SEPT																
OCT	5000#	950														
NOV															187	
DEC																
TOTAL																

Mo.	DEATH LOSS No	DEATH LOSS WT.	BREEDING RECORD No. F IN HERD	BREEDING RECORD No F BRED	BREEDING RECORD No. OF BIRTHS	BREEDING RECORD No BORN	BREEDING RECORD No WEANED
JAN.							
FEB.							
MAR.							
APR.							
MAY.							
JUN.							

Mo	DEATH LOSS No	DEATH LOSS WT	BREEDING RECORD No. F IN HERD	BREEDING RECORD No F BRED	BREEDING RECORD No OF BIRTHS	BREEDING RECORD No BORN	BREEDING RECORD No WEANED
JUL.							
AUG.							
SEPT.							
OCT.	2	900	75	75	0	0	68
NOV							
DEC.							

REFERENCES

GRAIN CROPS ENTERPRISE RECORD

CROP	FIELD NO	ACRES			YIELD PER ACRE	PRODUCTION			ENTERPRISE EXPENSE			
		OWNER	RENTED	TOTAL		TOTAL (QUANTITY)	OPERATOR SHARE (QUANTITY)	LANDLORD SHARE (QUANITITY)	FERT LIME	CROP CHEM	SEED & SUPPLIES	
CORN FOR GRAIN												
Home Farm		110	–	110	92	10,120	10,120	0	3300	1980	1540	
Rented			85	85	88	7480	3740	3740	2550	1530	1190	
TOTAL CORN FOR GRAIN	▨	110	85	195	▨	17600	13860	3740	5850	3510	2730	
SOYBEAN FOR GRAIN												
Jones Farm		0	40	40	42	1680	1680	0	880	560	800	
Smith Farm	1	0	35	35	38	1330	1330	0	770	490	700	
Smith Farm	2	0	35	35	36	1260	1260	0	770	490	700	
TOTAL SOYBEAN FOR GRAIN	▨	0	110	110	▨	4270	4270	0	2420	1540	2200	
WHEAT FOR GRAIN												
TOTAL WHEAT FOR GRAIN	▨											
MILO FOR GRAIN												
TOTAL MILO FOR GRAIN	▨											
OTHER GRAIN CROPS												
DIVERTED ACRES												
TOTAL GRAIN CROPS		110	195	305	▨	▨	▨	▨	▨	▨	▨	

CROP RECORD

FORM 33

CROP	FIELD NO	ACRES			YIELD PER ACRE	PRODUCTION			ENTERPRISE EXPENSE			
		OWNED	RENTED	TOTAL		TOTAL (tons)	Operator Share (tons)	Landlord Share (tons)	FERT LIME	CROP CHEM	SEEDS & SUPPLIES	—
SILAGE												
OTAL SILAGE												
THER CROPS												
						PRODUCTION TOTAL (tons)	Operator Share (tons)	Landlord Share (tons)				
OTAL OTHER CROPS												
AY & ROTATION PASTURE					HAY							
Pasture	=	180	0	180	1st cutting							
Sudan Grass	—	60	0	60	2nd cutting							
					3rd cutting							
TAL HAY & ROTATION PASTURE		240	0	240								
TAL GRAIN CROPS		110	195	305								
OTAL SILAGE		0	0	0	Grass Silage							
TAL OTHER CROPS		—	—	—	1st cutting							
TAL HAY & ROTATION PASTURE		240	0	240	2nd cutting							
DLE TILLABLE LAND		20	0	20	3rd cutting	64	64	0				
ONTILLABLE PASTURE		40	0	40								
OODLAND		16	40	56								
RMSTEAD, ROADS ETC		4	5	9								
OTAL FARM.		430	240	670								

AND INVENTORY	ACRES			VALUE PER ACRE	TOTAL VALUE		
	OWNED	RENTED	TOTAL		OWNED	RENTE	TOTAL
LLABLE CROPLAND	370	▨	370	950	351500	▨	351500
	▨	195	195	950	▨	185250	185250
NTILLABLE PASTURE	40	▨	40	600	24000	▨	24,000
	▨	0	0	600	▨	0	0
HER LAND	20	▨	20	400	8000	▨	8,000
	▨	45	45	400	▨	18.000	18,000
	▨				▨		
OTAL	430	240	670		383500	203250	586,750

Livestock Form 31

ENTERPRISE DATA

MO	FEED RECORD														VET & MED	OTHER LIVESTOC EXP.
	PROTEINS		GRAINS						ROUGHAGE							
			CORN						HAY		SILAGE		PASTURE			
	AMT	$	Bu	$	Amt	$	Amt	$	TONS	$	TONS	$	DAYS	UNITS	$	$
JAN																
FEB																
MAR																
APR																
MAY																
JUN																
JUL																
AUG																
SEPT																
OCT																
NOV																
DEC																
TOTAL																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Mo.	DEATH LOSS		BREEDING RECORD					Mo	DEATH LOSS		BREEDING RECORD				
	NO	WT.	No. F IN HERD	No F BRED	No. OF BIRTHS	No BORN	No WEANED		No	WT	No. F IN HERD	No F BRED	No OF BIRTHS	No BORN	NO WEANED
JAN.								JUL.							
FEB.								AUG.							
MAR.								SEPT.							
APR.								OCT.							
MAY.								NOV							
JUN.								DEC.							
REFERENCES	17	18	19	20	21	22	23		17A	18A	19A	20A	21A	22A	23A

GRAIN CROPS ENTERPRISE RECORD

CROP	FIELD NO	ACRES			YIELD PER ACRE	PRODUCTION			ENTERPRISE EXPENSE			
		OWNER	RENTED	TOTAL		TOTAL (QUANTITY)	OPERATOR SHARE (QUANTITY)	LANDLORD SHARE (QUANTITY)	FERT LIME	CROP CHEM	SEED & SUPPLIES	—
CORN FOR GRAIN												
TOTAL CORN FOR GRAIN	▨											
SOYBEAN FOR GRAIN												
TOTAL SOYBEAN FOR GRAIN	▨											
WHEAT FOR GRAIN												
TOTAL WHEAT FOR GRAIN	▨											
MILO FOR GRAIN												
TOTAL MILO FOR GRAIN	▨											
OTHER GRAIN CROPS												
DIVERTED ACRES												
TOTAL GRAIN CROPS												
1	2	3	4	5	6	7	8	9	10	11	12	13

HO-

CROP RECORD

FORM 33

CROP	FIELD NO	ACRES OWNED	ACRES RENTED	ACRES TOTAL	YIELD PER ACRE	PRODUCTION TOTAL (tons)	PRODUCTION Operator Share (tons)	PRODUCTION Landlord share (tons)	ENTERPRISE EXPENSE FERT LIME	ENTERPRISE EXPENSE CROP CHEM	ENTERPRISE EXPENSE SEEDS & SUPPLIES	—
SILAGE												
OTAL SILAGE												
THER CROPS												
						PRODUCTION TOTAL (tons)	PRODUCTION Operator share (tons)	PRODUCTION Landlord share (tons)				
OTAL OTHER CROPS												
AY & ROTATION PASTURE												
					HAY							
					1st cutting							
					2nd cutting							
TAL HAY & ROTATION PASTURE					3rd cutting							
OTAL GRAIN CROPS												
OTAL SILAGE												
TAL OTHER CROPS					Grass Silage							
TAL HAY & ROTATION PASTURE					1st cutting							
DLE TILLABLE LAND					2nd cutting							
ONTILLABLE PASTURE					3rd cutting							
OODLAND												
ARMSTEAD, ROADS ETC												
OTAL FARM.												

AND INVENTORY	ACRES OWNED	ACRES RENTED	ACRES TOTAL	VALUE PER ACRE	TOTAL VALUE OWNED	TOTAL VALUE RENTED	TOTAL VALUE TOTAL
LLABLE CROPLAND		▨				▨	
	▨				▨		
ANTILLABLE PASTURE		▨				▨	
	▨				▨		
THER LAND		▨				▨	
	▨				▨		
OTAL	▨				▨		

Example Farming Situation

In the month of October, a farmer fed 10,000# of corn to hogs in Lot 5 (valued at $2.20 per bushel) and 4,000# of supplement for $600. His veterinary bill, recorded on Form 7, was $40.50.

His 20 head sow herd was doing fine with half of the herd farrowing 87 pigs. By the end of the month, seven pigs had died. 4,000# of premixed feed was purchased for the sows at a price of $200 per 1,000#. Veterinary and medicine was $10.00.

In the same month, he was creep feeding his calves and fed them 5,000# of a premixed calf starter costing $950. He also had the veterinarian out to work the cattle which cost $187. He had some bad luck this month and lost two heifer calves weighing 450# a piece. However, all of his 75 cows were re-bred for the next year.

His crops had done well and he had completed harvest with the following results. His corn on 110 acres at home yielded 92 bushels per acre. While his corn on a ½ crop share basis yielded only 88 bushels per acre on 85 acres.

All of his soybean land was cash rented. The Jones Farm yielded 42 bushels per acre on 40 acres, while the Smith Farm had two fields, 35 acres a piece, which yielded 38 and 36 bushels respectively.

His third cutting of sudan grass for grass sileage yielded 64 tons on 60 acres.

Since his record book was up-to-date, his other expenses such as fertilizer, seed, etc., had already been entered.

Livestock
ENTERPRISE DATA

Form 31

	FEED RECORD														VET & MED	OTHER LIVESTOC EXP.
MO	PROTEINS		GRAINS						ROUGHAGE							
			CORN						HAY		SILAGE		PASTURE			
	AMT	$	Bu	$	Amt	$	Amt	$	TONS	$	TONS	$	DAYS	UNITS	$	$
JAN																
FEB																
MAR																
APR																
MAY																
JUN																
JUL																
AUG																
SEPT																
OCT																
NOV																
DEC																
TOTAL																

Mo.	DEATH LOSS		BREEDING RECORD					Mo	DEATH LOSS		BREEDING RECORD				
	No	WT.	No. F IN HERD	No F BRED	No. OF BIRTHS	No BORN	No WEANED		No	WT	No. F IN HERD	No F BRED	No OF BIRTHS	No BORN	No WEANED.
JAN.								JUL.							
FEB.								AUG.							
MAR.								SEPT.							
APR.								OCT.							
MAY.								NOV.							
JUN.								DEC.							

REFERENCES

FORM 32

GRAIN CROPS ENTERPRISE RECORD

CROP	FIELD NO	ACRES OWNER	ACRES RENTED	ACRES TOTAL	YIELD PER ACRE	PRODUCTION TOTAL (QUANTITY)	PRODUCTION OPERATOR SHARE (QUANTITY)	PRODUCTION LANDLORD SHARE (QUANTITY)	ENTERPRISE EXPENSE FERT LIME	ENTERPRISE EXPENSE CROP CHEM	ENTERPRISE EXPENSE SEED & SUPPLIES	
CORN FOR GRAIN												
TOTAL CORN FOR GRAIN	▨											
SOYBEAN FOR GRAIN												
TOTAL SOYBEAN FOR GRAIN	▨											
WHEAT FOR GRAIN												
TOTAL WHEAT FOR GRAIN	▨											
MILO FOR GRAIN												
TOTAL MILO FOR GRAIN	▨											
OTHER GRAIN CROPS												
DIVERTED ACRES												
TOTAL GRAIN CROPS												

CROP RECORD

Form 33

CROP	FIELD NO	ACRES			YIELD PER ACRE	PRODUCTION			ENTERPRISE EXPENSE			
		OWNED	RENTED	TOTAL		TOTAL (tons)	Operator Share (tons)	Landlord Share (tons)	FERT LIME	CROP CHEM	SEEDS & SUPPLIES	—
SILAGE												
OTAL SILAGE												
THER CROPS					☒	PRODUCTION TOTAL (tons)	Operator Share (tons)	Landlord Share (tons)	☒	☒	☒	☒
OTAL OTHER CROPS					☒				☒	☒	☒	☒
AY & ROTATION PASTURE					HAY							
					1st cutting							
					2nd cutting							
					3rd cutting							
TAL HAY & ROTATION PASTURE												
OTAL GRAIN CROPS												
OTAL SILAGE					Grass Silage							
OTAL OTHER CROPS					1st cutting							
TAL HAY & ROTATION PASTURE					2nd cutting							
DLE TILLABLE LAND					3rd cutting							
ONTILLABLE PASTURE												
OODLAND												
ARMSTEAD, ROADS ETC												
OTAL FARM.		3	4	5	6	7	8	9	10	11	12	13
	2											

AND INVENTORY	ACRES			VALUE PER ACRE	TOTAL VALUE		
	OWNED	RENTED	TOTAL		OWNED	RENTE	TOTAL
LLABLE CROPLAND		▨				▨	
	▨				▨		
NTILLABLE PASTURE		▨				▨	
	▨				▨		
THER LAND		▨				▨	
	▨				▨		
	▨				▨		
OTAL							
14	15	16	17	18	19	20	21

Farm Business Management

and Analysis Program

Unit I - Establishing a Farm Accounting System

Lesson 9 - Making the Mid-Year Cash Flow Check

A. Review

The previous lesson, Keeping Enterprise Records, should be reviewed. List all conclusions reached at your last meeting. Possible conclusions may have included:

1. Good enterprise records are essential to identify low profit enterprises.
2. Feed raised as well as feed purchased should be recorded for accurate analysis.
3. Enterprise records, kept monthly, are necessary.
4. "Barn Cards" may be necessary to obtain necessary information.
5.
6.
7.

B. Objective

To make a mid-year cash flow check.

C. Motivation

Ask enrollees how many prices are exactly what they thought they would be in January. Ask how this affected their short and intermediate plans and how these decisions affected their cash flow situation.

Point out the importance of periodically checking our cash flow plan to reevaluate our position.

D. Key Points

Key points which will be accomplished are as follows:

1. Make a mid-year cash flow check.
2.

E. Introduction of Information

The cash flow check is the farmer's bridge between intentions and reality. Monthly, quarterly, or semi-annual comparisons are necessary if the farmer expects to really control the financial aspects of his farming business. The decision for regularity of cash flow comparisons is affected by type of farming operation, financial status, importance of cost control, business arrangements, personal preference, costs skyrocket and price drop sharply.

As the proportion of purchased inputs to products sales increases, so does the need for current cost control. This is a key benefit of the cash flow check-up. Show TM-1 to point out the reasons for Regular Cash Flow Comparisons. There may be other reasons which enrollees have for making periodic cash flow checks.

Distribute HO-1 which is a cash flow of an example farming situation in Lesson 4. You may want to refresh the enrollees' memory about this farming situation. This may be done by distributing HO-2 and reading through it carefully so that everyone understands the situation completely. Be sure to emphasize that when this was developed, it was what the farmer expected to happen.

Now distribute HO-3 which indicates some of the price changes which actually occurred over the six months since his plans were made.

Distribute HO-4 to illustrate an example cash flow summary for the time period of January 1st to June 30th for the example farm.

Distribute HO-5 to classmembers. Explain that this form is used to check cash flows. It may be used for any length of time and there is room for two checks on this sheet. If only two cash flow checks are completed per year, they are usually done in July and November. The November check is usually done for tax analysis purposes, also. When these figures are obtained, they can be run on the remote computer terminal and the tax management program.

Steps in using HO-5 are as follows:

1. Put dollar figures in for the period budgeted for (July-June in this example).
2. Put actual dollar figures in for the same period.
3. Compute the difference between the budgeted column and the actual column.

Have enrollees begin completing HO-5 by using HO-1 and HO-4. When they have worked with it awhile, you may want to work through it with them with the help of TM-2.

When you have completed TM-2, it should look like the following page (Page 4). Make sure everyone agrees on the answers which were obtained for TM-2.

After everyone agrees on the figures, there needs to be a plan of action for this example.

Actions to consider are as follows:

1. The farmer should meet with the bank or should have already met with the bank to explain whey he has had to borrow more money than anticipated and why he has not repaid more money. Actually, the farmer only owes the bank $100 more than he did in January. Considering all of the changes from his plans, he is not in bad shape. He may want to take this form to the lender when discussing his situation. He may also want to construct a new cash flow for the second half of the year if he anticipates more changes from his plan. If interest rates are considerably high, he may want to consider several alternatives for the second half of the year.

2. In light of his conversation with his lender and price outlook, he may consider selling his cattle at an earlier date. He would probably continue grazing them but not put any feed in them. However, this depends upon the market considerably.

3. He may consider different management practices with his hogs to insure not having as great of medical problems in the future. Preventative medicine is the best.

4. He may consider selling part of his sows if he anticipates low prices over a long time.

5. He may consider cutting back on top dressing his pasture if fertilizer costs continue to rise.

6. He may consider delaying the purchase of his sow shelters in October or he may look at cheaper alternatives.

7. He could consider reducing family living. However, this figure is not excessively high and reduction may not be very great without a considerable burden on the family.

F. Group Discussion

Sufficient time should be allotted so that enrollees have all questions concerning this example explained. Problems concerning other enterprises may be discussed. Be sure to formulate an alternative or solution to the problems discussed.

Discussion may want to include the opposite. That is what to do with excess funds if windfall profits are encountered. Short and long term investments should be considered.

Cash Rent	29													
Power Fuel, Oil, Grease	30		1200		1280		-80							
Hired Labor	31													
Insurance	32		420		420		–							
Taxes	33													
Utilities	34		900		795		+105							
Truck Expenses	35		300		353		-53							
Auto Expenses	36													
Misc. Farm Expenses	37		600		652		-52							
Interest (existing obligations)	38		1200		1200		–							
Non-Breeding Livestock	39													
	40													
	41													
OPERATING EXPEND. TOTAL (add lines 20 through 41)	E		21136		21856		-720							
Breeding Stock Purchases	42													
	43													
Mach. and Equip. Purchases	44													
Land and Bldg. Imprvm'ts	45		800		865		-65							
CAPITAL EXPENSES TOTAL (add lines 42 through 45)	F		800		865		-65							
TOTAL FARM EXPENSES (line E plus F)	G		21936		23721		-785							
PRINCIPAL PAID existing obligations	46		2000		2000		–							
NON-FARM EXP. AND INVEST.	47													
FAMILY LIVING	FL		4998		4931		+67							
TOTAL DOLLARS USED (add lines G through FL)	H		28934		29652		-718							
CASH DIFFERENCE FOR MONTH (line D minus H)	I		6714		-817		-7531							
CASH BALANCE BEGINNING OF MONTH (line N last month)	J		1513		865		[illegible]							
CASH AVAILABLE BEFORE BORROWING (line J±I)	K		8227		48		[illegible]							
SHORT-TERM LOAN PROCEEDS (if line K is negative)	L		500		9250		[illegible]							
SHORT-TERM LOAN REPAYMENTS (if line K is positive)	M		7800		3150		[illegible]							
CASH BALANCE END OF MO. (line K plus L minus M)	N		927		158		-769							
SHORT-TERM CREDIT BALANCE	O		[illegible]		[illegible]		[illegible]							

CASH FLOW CHECKUP

	LINE	budget for period		actual for period		difference + or -		budget for period		actual for period		difference + or -		total
RECEIPTS		quan.	$	quan.	$	quan.	$	quan.	$	quan.	$	quan.	$	
Crop Sales	1		1715		1519		-196							
	2													
	3													
	4													
Gov't Payments	5													
Custom Work	6													
Dividends, Refunds, Resales	7													
Cash Rent, Other Farm	8													
Non-Brdg Livestock Sales	9													
	10													
	11		33933		27316		-6617							
Livestock Products	12													
	13													
OPERATING SALES TOTAL (add lines 1 through 13)	A		35648		28835		-6813							
Breeding Livestock Sales	14													
	15													
	16													
Mach., Equip., Bldgs. Sold	17													
CAPITAL SALES TOTAL (add lines 14 through 17)	B													
TOTAL FARM RECEIPTS (line A plus B)	C		35648		28835		-6813							
MONEY BORROWED summary only	18													
NON-FARM RECEIPTS	19													
TOTAL DOLLARS AVAILABLE	D													
EXPENDITURES	▨													
Feed	20		14025		14335		-310							
Vet., Med	21		300		339		-39							
Breeding Fees, Registr.	22													
Fertilizer, Lime	23		1120		1474		-354							
Crop Chemicals	24		130		234		-104							
Seeds, Crop Supplies	25		191		190		+1							
Machinery Repair, Maint.	26		300		287		+13							
Building, Fence Repair	27		450		297		+153							
Machinery, Truck Hire	28													

G. Conclusions

Conclusions which may be reached include:

1. Cash flow checks are essential for good planning.
2. Several factors affect how often we should check our cash flow plans.
3. Usually farmers check cash flows at least twice per year (July and November).
4. A good plan of action should follow most cash flow checks.
5.
6.

H. Announcements

Next meeting, we will be working with the value money received in the future has to us today. The next meeting will be conducted in September.

I. Social

J. On-the-Farm Instruction

When visiting enrollees following this lesson, assist them in making their mid-year cash flow check and in formulating their plan of action following the cash flow check.

Cash Rent	29													
Power Fuel, Oil, Grease	30	150	150	150	250	250	250	250	750	250	150	150	150	2400
Hired Labor	31													
Insurance	32				420					220				640
Taxes	33												530	530
Utilities	34	150	150	150	150	150	150	150	150	150	150	150	150	1800
Truck Expenses	35	50	50	50	50	50	50	50	50	50	50	50	50	600
uto Expenses	36													
Misc. Farm Expenses	37	100	100	100	100	100	100	100	100	100	100	100	100	1200
Interest (existing obligations)	38		1200										5500	6700
Non-Breeding Livestock	39													
Cattle	40										7267	7267	7267	21801
Hogs	41													
OPERATING EXPEND. TOTAL (add lines 20 through 41)	E	3025	4548	3025	3420	3000	4118	3000	3600	3220	34447	10292	18947	94042
Breeding Stock Purchases	42													
	43													
Mach. and Equip. Purchases	44										1200			1200
Land and Bldg. Imprvm'ts	45			800										800
CAPITAL EXPENSES TOTAL (add lines 42 through 45)	F			800							1200			2000
OTAL FARM EXPENSES (line E plus F)	G	3025	4548	3825	3420	3000	4118	3000	3600	3220	35647	10292	18947	96042
PRINCIPAL PAID existing obligations	46		2000										3000	5000
NON-FARM EXP. AND INVEST.	47													
FAMILY LIVING	FL	833	833	833	833	833	833	833	833	833	833	833	837	10000
TOTAL DOLLARS USED (add lines G through FL)	H	3858	7381	4658	4253	3833	4951	3833	4433	4053	36480	11125	22184	111042
CASH DIFFERENCE FOR MONTH (line D minus H)	I	305	112	-493	2835	105	3852	5667	3667	40447	-28582	-6737	-14286	6890
CASH BALANCE BEGINNING OF MONTH (line N last month)	J	725	30	142	147	182	287	139	306	173	36380	7798	1061	725
CASH AVAILABLE BEFORE BORROWING (line J±I)	K	1030	142	-353	2982	287	4139	5806	3973	40620	7798	-1061	-13225	7615
SHORT-TERM LOAN PROCEEDS (if line K is negative)	L			500									13500	14000
ORT-TERM LOAN REPAYMENTS f line K is positive)	M	1000			2800		4000	5500	3800	4240				21340
CASH BALANCE END OF MO. (line K plus L minus M)	N	30	142	147	182	287	139	306	173	36380			275	275
SHORT-TERM CREDIT BALANCE line O last month plus L minus M	O	19840	19840	20340	17540	17540	13540	8040	4240	-0-	-0-	-0-	13500	13500
20840		JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	TOTAL

HO-1

FORM 27 **CASH FLOW** 1980 **FINANCIAL [✓ PLAN] OR SUMMARY**

	LINE	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG	SEPT.	OCT.	NOV.	DEC.	TOTAL
RECEIPTS														
Crop Sales Wheat	1						1715							1715
Fescue Seed	2							3000						3000
	3													
	4													
Gov't Payments	5													
Custom Work	6							2000						2000
Dividends, Refunds, Resales	7													
Cash Rent, Other Farm	8													
Non-Brdg Livestock Sales	9													
Cattle	10									40000				40000
Hogs	11	4163	7493	4163	7088	3938	7088	4500	8100	4500	7898	4388	7898	71217
Livestock Products	12													
	13													
OPERATING SALES TOTAL (add lines 1 through 13)	A	4163	7493	4163	7088	3938	8803	9500	8100	44500	7898	4388	7898	117932
Breeding Livestock Sales	14													
	15													
	16													
Mach., Equip., Bldgs. Sold	17													
CAPITAL SALES TOTAL (add lines 14 through 17)	B													
TOTAL FARM RECEIPTS (line A plus B)	C	4163	7493	4163	7088	3938	8803	9500	8100	44500	7898	4388	7898	117932
MONEY BORROWED summary only	18													
NON-FARM RECEIPTS	19													
TOTAL DOLLARS AVAILABLE	D	4163	7493	4163	7088	3938	8803	9500	8100	44500	7898	4388	7898	117932
EXPENDITURES														
Feed	20	2400	2400	2400	2275	2275	2275	2275	2875	2275	2275	2400	2400	52525
Vet., Med	21	50	50	50	50	50	50	50	50	50	50	50	50	600
Breeding Fees, Registr.	22													
Fertilizer, Lime	23		210				910				280		2025	3425
Crop Chemicals	24						130							130
Seeds, Crop Supplies	25		113				78							191
Machinery Repair, Maint.	26	50	50	50	50	50	50	50	50	50	50	50	50	600
Building, Fence Repair	27	75	75	75	75	75	75	75	75	75	75	75	75	900

Example Cash Flow Planning

(This example is for a young couple starting to farm in 1980 and is as of January. They own 160 acres and have a financial statement on January 1st as on HO-1.)

STEP I

1. Livestock:

   a. Cattle: Plans to buy about 100 head of 250-280# heifer calves in October-December each year; grow them with about 3# grain mix/day plus free choice hay until grass; graze on grass only until about the middle or last of July and then add about 4-6# grain mix per day until September and sell weighing about 650#. Estimated cost for the quality calf usually bought is 82¢/lb. and estimated sale price is 76¢/lb. (8¢ under feeder cattle futures price.) Has been having about a 4% death loss.

   Cash Expenses

   265# @ 82¢ = 218 x 100 head = $21,800 or $7,267 in October, November, December (uses 3# grain mix per day for 150 days, November 1-April 1) and 5#/day for 30 days or total of 600#/head or 60,000# total. Of this, about 12½% or 7,500# is 32% cattle supplement costing about $8.00/cwt. or $600 plus $200 for grinding and medication. ¼ of this fed in August ($200): balance ($600) November 1-April 1; about 1000 bu. milo will be used but added to hog needs. Enough hay and pasture is raised.

   Sell 94 head in September @ 650# @ 76¢ - $46,436 (rounded to $40,000 to be conservative and allow for commission, trucking, etc.).

   b. Hogs: Has 60 sows raising market hogs and farrows in three groups of 20 each in February, April, June, August, October and December. Has been weaning about 130-150 pigs per group. Usually sells about 90 in February, April, June, August, October and December and about 50 in each of the other months. Plans to sell at 225# and based on UMC Ag. Econ. outlook information and futures prices, plans on $37 the first quarter, $35 the second quarter, $40 the third quarter and $39 the fourth quarter. Figures any cull sows sold will at least equal the value of the replacement gilt. Total feed used is about 220 bu. milo, 2,500# hog supplement, and 500# creep feed per sow per year or 13,200 bu. milo, 75 tons hog supplement, and 15 tons creep feed. Grain is stored, processed, and delivered by a local elevator and costs about 25¢/cwt. or $1,800 per year. Milo is usually purchased at harvest at about $3.50/cwt. or $2/bu. Hog supplement figured at $300/ton and creep feed @ $200/ton.

2. Crops:

(Plans 26 acres milo, 14 acres of alfalfa and brouse, 13 acres fescue and red clover, 14 acres wheat, 14 red clover, 40 acres improved pasture and 39 acres hog pasture, lots, timber, farmstead and waste land.)

a. 26 acres milo - figures yield of 75 bu/acre - all fed (needs 13,200 bu for hogs, 1,000 bu for cattle, produces about 2,000 bu; will need to buy about 12,000 bu in October @ $2/bu.) Plans a fertilizer cost of about $35/acre or $910. Seed $3/acre or $78, chemical $5/acre or $130, all in June.

b. The 81 acres of hay and pasture ground will be top dressed with about $25/acre of fertilizer - pay for it in December each year - $2,025.

c. Wheat - Plan about 35 bu yield @ $3.50 in June or $1,715. Use own seed - starter fertilizer of $20/acre or $280 in October and $15/acre or $210 for nitrogen in February. Also, about 125# red clover seed in February @ 90¢/lb. or $113.

d. About $2,000 custom hay baling for a neighbor is done each July and about $3,000 from combining fescue seed is received in June.

STEP 2

Other overhead costs were obtained from last year's records or estimated and included:

Vet. Med. = average about $50/month

Machinery Repair = about $50/month

Building Repair = about $75/month

Fuel = about $150/month in January, February, March, October, November and December

Insurance = $420 in April and $220 in September

Taxes = property taxes - $530 in December

Utilities = $150/month

Truck Expense = fuel is in fuel line, other costs $50/month

Miscellaneous = $100/month

Interest = $1,200 in February, $5,500 in December

New Investments = new fence and portable sow shelters - (fence $800 in March, shelters - $1,200 in October)

Principal Due = $2,000 in February; $3,000 in December; current is repaid as available

STEP 3

Their goal, after reviewing last year's records and some family budgets, is to keep family living under $10,000. Their estimates are as follows:

Food - $2,000
Clothing - 800
Household - 750
House Expenses - 500
Personal Items - 1,000
Recreation - 600
Education - $ 500
Medicine - 200
Medical and Life Insurance - 1,000
Church and Charity - 600
Gifts - 200
Income Taxes & Social Security - 1,000
Miscellaneous - $ 850
TOTAL - $10,000

They also ran the SSPEND program on the Remote Computer Planning Terminal to compare with "typical" families and received the following print-out:

As a result, they decided to include $833 each month as family living. They had no off-farm income.

STEP 4

They completed Form 27 - Cash Flow as shown on HO-1. Explanations follow:

1. Wrote "cattle" on Line 40 and entered $7,267 in October, November and December.
2. Wrote "cattle" on Line 10 and entered $40,000 in September.
3. Wrote "hogs" on Line 11 and entered $4,163 in January (50 head x 224# x 37¢); $7,493 in February (90 head x 225# x 37¢); etc.
4. Determined feed expense for Line 20 by:
    a. 12,000 bu milo in October @ $2/bu or $24,000.
    b. Cattle supplement $600 in August; $120/month November-April 1.
    c. Hog supplement - 75 tons @ $300 = $22,500; $1,800 storage, grinding, delivery charge; and 15 tons creep feed @ $200 = $3,000 or total of $27,300. $27,300 ÷ 12 = $2,275 monthly feed bill for hogs.
    d. Total feed: January-March = $120 + $2,275 = $2,395 (rounded to $2,400; April-August = $2,275; August - $600 + $2,275 = $2,875; September = $2,275; October - $2,275 + $24,000; November and December - $2,275 + $120 = $2,400.
5. Entered milo fertilizer, seed and chemical expense.
6. Entered pasture and hay fertilizer on Line 23 in December.
7. Entered sale of wheat - Line 1 - June.
8. Entered wheat expense on Lines 23 and 25.
9. Entered custom work (Line 6) and sale of fescue seed on Line 2.
10. Entered overhead and other money going out as shown.
11. Totaled all total lines (lettered as A, B, etc.) and the total column. Checked for math errors by adding Lines D and H horizontally and obtained same figure as in total column.
12. This farmer had $725 in the checking account January 1, which was entered on Line 4 under January. Also, there was $20,840 short term or current credit borrowed from PCA January 1. This figure was entered in the box at the bottom of the form.
13. As Line K was developed, the farmer decided amount to repay on the short-term loan (the principal for a long-term and a

seven year intermediate loan had been entered on Line 46) which went on Line M. In March and December, it was necessary to borrow $500 and $13,500 which was entered on Line L.

STEP 5

Making Adjustments as Desired

1. With interest at 12-14% on short term investments in early 1980, the farmer might decide to transfer part or all of the cash balance (Line H) in October and November to Line 47 and plan to invest it in some 60 day debentures - or, pay off more of the intermediate loan and increase the operating loan in December and later months.

2. The farmer would then give a copy of this cash flow plan to the lender and indicate when payments would plan to be made and when credit would be needed.

Livestock

Cattle: Plans have been very good so far. Death loss was held to about 2%. Actual supplement price was $8.25/cwt. or about $103/month. Medication and grinding held about as expected.

Hogs: Had more illness than expected and didn't market the usual 90 hogs in February or April. March's receipts were lower also with only 40 hogs being sold. The real problem, however, has been in the market. The first quarter of the year, he received only $34/cwt. with the second quarter dropping to $28.50.

Although the prices received dropped, the price of hog supplement rose slightly.

Crops

Milo: Fertilizer costs have shyrocketed with his fertilizer bill costing $47/acre. Seed costs were about as expected, however, chemical costs were $9/acre or $234.

Wheat: Fertilizer costs in February were $252. Yields were about as expected at 35 bushels/acre. The price fell to $3.10 at harvest time.

Overhead Costs

As indicated on the Cash Flow Summary.

Machinery, Truck Hire	28													
Cash Rent	29													
Power Fuel, Oil, Grease	30	156	148	120	210	306	340							
Hired Labor	31													
Insurance	32				420									
Taxes	33													
Utilities	34	146	159	134	129	118	109							
Truck Expenses	35	160	0	0	48	65	80							
uto Expenses	36													
Misc. Farm Expenses	37	90	140	68	132	85	137							
Interest (existing obligations)	38													
Non-Breeding Livestock	39		1200											
Cattle	40													
Hogs	41													
OPERATING EXPEND. TOTAL (add lines 20 through 41)	E	3097	4595	2909	3420	3131	4704							
Breeding Stock Purchases	42													
	43													
Mach. and Equip. Purchases	44													
Land and Bldg. Imprvm'ts	45			865										
CAPITAL EXPENSES TOTAL (add lines 42 through 45)	F	3097	4595	3774	3420	3131	4704							
OTAL FARM EXPENSES (line E plus F)	G	3097	4595	3774	3420	3131	4704							
PRINCIPAL PAID existing obligations	46		2000											
NON-FARM EXP. AND INVEST.	47													
FAMILY LIVING	FL	825	814	790	827	840	835							
TOTAL DOLLARS USED (add lines G through FL)	H	3922	7409	4564	4247	3971	5539							
CASH DIFFERENCE FOR MONTH (line D minus H)	I	-250	-1060	-1504	1011	-765	1751							
CASH BALANCE BEGINNING OF MONTH (line N last month)	J	725	75	15	11	22	7							
CASH AVAILABLE BEFORE BORROWING (line J±I)	K	475	-985	-1489	1022	-743	1758							
SHORT-TERM LOAN PROCEEDS (if line K is negative)	L		1000	1500		750								
ORT-TERM LOAN REPAYMENTS (if line K is positive)	M	400			1000		1750							
CASH BALANCE END OF MO. (line K plus L minus M)	N	75	15	11	22	7	8							
SHORT-TERM CREDIT BALANCE line O last month plus L minus M	O	20440	21440	22940	21940	22690	20940							
20840		JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	TOTAL

HO-4

FORM 27 **CASH FLOW** FINANCIAL PLAN OR [✓ SUMMARY]

	LINE	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG	SEPT.	OCT.	NOV.	DEC.	TOTAL
RECEIPTS														
Crop Sales Wheat	1						1519							
Fescue Seed	2													
	3													
	4													
Gov't Payments	5													
Custom Work	6													
Dividends, Refunds, Resales	7													
Cash Rent, Other Farm	8													
Non-Brdg Livestock Sales	9													
Cattle	10	3672	6349	3060	5258	3206	5771							
Hogs	11													
Livestock Products	12													
	13													
OPERATING SALES TOTAL (add lines 1 through 13)	A	3672	6349	3060	5258	3206	7290							
Breeding Livestock Sales	14													
	15													
	16													
Mach., Equip., Bldgs. Sold	17													
CAPITAL SALES TOTAL (add lines 14 through 17)	B	3672	6349	3060	5258	3206	7290							
TOTAL FARM RECEIPTS (line A plus B)	C	3672	6349	3060	5258	3206	7290							
MONEY BORROWED summary only	18													
NON-FARM RECEIPTS	19													
TOTAL DOLLARS AVAILABLE	D	3672	6349	3060	5258	3206	7290							
EXPENDITURES														
Feed	20	2470	2478	2473	2310	2340	2244							
Vet., Med	21	75	80	50	46	48	40							
Breeding Fees, Registr.	22													
Fertilizer, Lime	23		252				1222							
Crop Chemicals	24						234							
Seeds, Crop Supplies	25		111				79							
Machinery Repair, Maint.	26	0	27	0	0	84	176							
Building, Fence Repair	27	0	0	64	125	85	22							

Mach[redacted]y. T[redacted]k H[redacted]	[redacted]													
Cash Rent	29													
Power Fuel, Oil, Grease	30													
Hired Labor	31													
Insurance	32													
Taxes	33													
Utilities	34													
Truck Expenses	35													
Auto Expenses	36													
Misc. Farm Expenses	37													
Interest (existing obligations)	38													
Non-Breeding Livestock	39													
	40													
	41													
OPERATING EXPEND. TOTAL (add lines 20 through 41)	E													
Breeding-Stock Purchases	42													
	43													
Mach. and Equip. Purchases	44													
Land and Bldg. Imprvm'ts	45													
CAPITAL EXPENSES TOTAL (add lines 42 through 45)	F													
TOTAL FARM EXPENSES (line E plus F)	G													
PRINCIPAL PAID existing obligations	46													
NON-FARM EXP. AND INVEST.	47													
FAMILY LIVING	FL													
TOTAL DOLLARS USED (add lines G through FL)	H													
CASH DIFFERENCE FOR MONTH (line D minus H)	I													
CASH BALANCE BEGINNING OF MONTH (line N last month)	J													
CASH AVAILABLE BEFORE BORROWING (line J ± I)	K													
SHORT-TERM LOAN PROCEEDS (if line K is negative)	L													
SHORT-TERM LOAN REPAYMENTS (if line K is positive)	M													
CASH BALANCE END OF MO. (line K plus L minus M)	N													
SHORT-TERM CREDIT BALANCE line O last month plus L minus M	O													

CASH FLOW CHECKUP

RECEIPTS	LINE	budget for period		actual for period		difference + or -		budget for period		actual for period		difference + or -		total
		quan.	$	quan.	$	quan.	$	quan.	$	quan.	$	quan.	$	
Crop Sales	1													
	2													
	3													
	4													
Gov't Payments	5													
Custom Work	6													
Dividends, Refunds, Resales	7													
Cash Rent, Other Farm	8													
Non-Brdg Livestock Sales	9													
	10													
	11													
Livestock Products	12													
	13													
OPERATING SALES TOTAL (add lines 1 through 13)	A													
Breeding Livestock Sales	14													
	15													
	16													
Mach., Equip., Bldgs. Sold	17													
CAPITAL SALES TOTAL (add lines 14 through 17)	B													
TOTAL FARM RECEIPTS (line A plus B)	C													
MONEY BORROWED summary only	18													
NON-FARM RECEIPTS	19													
TOTAL DOLLARS AVAILABLE	D													
EXPENDITURES	▨	quan.	$	quan.	$	quan.	$	quan.	$	quan.	$	quan.	$	
Feed	20													
Vet., Med	21													
Breeding Fees, Registr.	22													
Fertilizer, Lime	23													
Crop Chemicals	24													
Seeds, Crop Supplies	25													
Machinery Repair, Maint.	26													
Building, Fence Repair	27													

Machinery, Truck Hire	28													
Cash Rent	29													
Power Fuel, Oil, Grease	30													
Hired Labor	31													
Insurance	32													
Taxes	33													
Utilities	34													
Truck Expenses	35													
Auto Expenses	36													
Misc. Farm Expenses	37													
Interest (existing obligations)	38													
Non-Breeding Livestock	39													
	40													
	41													
OPERATING EXPEND. TOTAL (add lines 20 through 41)	E													
Breeding Stock Purchases	42													
	43													
Mach. and Equip. Purchases	44													
Land and Bldg. Imprvm'ts	45													
CAPITAL EXPENSES TOTAL (add lines 42 through 45)	F													
TOTAL FARM EXPENSES (line E plus F)	G													
PRINCIPAL PAID existing obligations	46													
NON-FARM EXP. AND INVEST.	47													
FAMILY LIVING	FL													
TOTAL DOLLARS USED (add lines G through FL)	H													
	▨													
CASH DIFFERENCE FOR MONTH (line D minus H)	I													
CASH BALANCE BEGINNING OF MONTH (line N last month)	J													
CASH AVAILABLE BEFORE BORROWING (line J±I)	K													
SHORT-TERM LOAN PROCEEDS (if line K is negative)	L													
SHORT-TERM LOAN REPAYMENTS (if line K is positive)	M													
CASH BALANCE END OF MO. (line K plus L minus M)	N													
SHORT-TERM CREDIT BALANCE line O last month plus L minus M	O													

TM-2

CASH FLOW CHECKUP

	LINE	budget for period		actual for period		difference + or -		budget for period		actual for period		difference + or -		total
RECEIPTS		quan.	$	quan.	$	quan.	$	quan.	$	quan.	$	quan.	$	
Crop Sales	1													
	2													
	3													
	4													
Gov't Payments	5													
Custom Work	6													
Dividends, Refunds, Resales	7													
Cash Rent, Other Farm	8													
Non-Brdg Livestock Sales	9													
	10													
	11													
Livestock Products	12													
	13													
OPERATING SALES TOTAL (add lines 1 through 13)	A													
Breeding Livestock Sales	14													
	15													
	16													
Mach., Equip., Bldgs. Sold	17													
CAPITAL SALES TOTAL (add lines 14 through 17)	B													
TOTAL FARM RECEIPTS (line A plus B)	C													
MONEY BORROWED summary only	18													
NON-FARM RECEIPTS	19													
TOTAL DOLLARS AVAILABLE	D													
EXPENDITURES	▨													
Feed	20													
Vet., Med	21													256
Breeding Fees, Registr.	22													
Fertilizer, Lime	23													
Crop Chemicals	24													
Seeds, Crop Supplies	25													
Machinery Repair, Maint.	26													
Buil[illegible] Fe[illegible] Re[illegible]	[illegible]													

REASONS FOR REGULAR CASH FLOW COMPARISONS

1. TYPE OF FARMING OPERATION
2. FINANCIAL STATUS
3. IMPORTANCE OF COST CONTROL
4. BUSINESS ARRANGEMENTS
5. PERSONNAL PREFERENCE
6. COSTS SKYROCKET
7. PRICES DROP SHARPLY

Farm Business Management
and Analysis Program

Unit I - Establishing a Farm Accounting System

Lesson 10 - Using Concept of Time Value in Planning

A. Review

The previous lesson, Making the Mid-Year Cash Flow Check, should be reviewed. List all conclusions reached at your last meeting. Possible conclusions may have included:

1. Cash Flow Checks are essential for good planning.
2. Several factors affect how often we should check our Cash Flow Plans.
3. Usually farmers check Cash Flows at least twice per year: July and November.
4. A good plan of action should follow most Cash Flow Checks.
5.
6.

B. Objective

To use the concept of time value in planning investments.

C. Motivation

Ask an enrollee if he will loan you $100 and you will repay him in one year. See how much he wants you to pay him when the year is up. Now ask another enrollee how much he will lend you so that in one year you can pay him $100 back.

Stimulate the enrollees' interest by discussing the actual value that money has over time. Other single examples along this line can be used.

Administer the accompanying quiz as a motivating experience for enrollees.

D. Key Points

Key points which will be accomplished are as follows:

1. Calculating time value of money.

E. Introduction of Information

Money has a time value. Or, put another way, a dollar in the hand today is worth more than a dollar to be received sometime in the future. The basic reason is that the dollar received today could be put to work to earn more money.

Distribute HO-1 to illustrate the value of one dollar in five years if it earned 8% compound interest. The answer is found by moving down the first column to year 5 and accross to the 8% column. The answer is $1.47. Several examples should be used until enrollees feel as though they can use the table accurately.

Another way of looking at this table is look at $1.47 received in five years is worth $1.00 to us today. This is assuming that we could receive 8% compounded interest.

Distribute HO-2 to use in calculating the amount of money which we would have to have today in order to receive $1.00 at a future date. For an example, if we could earn 8% interest, we would have to have $.63 today in order to have $1.00 in six years.

Distribute HO-3 to enrollees and assist them in calculating the answers to the questions. Some conclusions to the questions are as follows:

1. Someone has offered to buy the timber in your woodlot for $13,000. You estimate that the same timber could be sold for $20,000 ten years from now. With an opportunity rate of 8 percent, should you sell now or wait 10 years?

   Using HO-2:

   20,000 x .463 = $9,260

   Since the $20,000 has a present value of only $9,260, the farmer would probably want to sell his trees for $13,000. Or, using HO-1:

   13,000 x 2.1589 = $28,065

   If he accepts $13,000 today, he would have $28,065 in ten years if he invests his money for 8 percent compound interest.

2. If you owe $4,000 due at the end of five years, what amount should your creditor accept in payment immediately if he can earn 8 percent for his money?

   Using HO-2:

   $4,000 x .6805 = $2,722

3. You are considering making an investment which would cost you $10,000. In one year, it would return $1,000; in year

two, it would return $5,000; in year three, it would return $8,000. Assuming a 10 percent opportunity cost, would this be a good investment?

Using HO-2:

$1,000 x .9090 = $ 909
$5,000 x .8264 = 4,132
$8,000 x .7513 = 6,010
$11,051

Yes, this is a good investment.

4. A dairy farmer has extra barn space and can purchase 30 cows at $800 per head. This will increase his herd size from 50 to 80 cows. The alternative is to start 30 additional replacements now which will be added to the herd at the start of the third year.

The cows he is considering purchasing would add $6,000 per year to the net cash flow for three years. The cost of acquiring the 30 replacements will be $6,000 now, $3,000 for the first year and $4,000 for the second year.

The salvage value of the purchased animals will be $500 each year after the second year. The value of the 30 raised replacements will be $20,000 after the start of year three.

If the cost of his capital is 10 percent, should he buy cows now or raise replacements?

	Raise Replacements	Buy Now
Now	- $ 6,000 x 1 = - $ 6,000	1 x - $24,000 = - $24,000
Year 1	- 3,000 x .9090 = - 2,727	.9090 x + 8,000 = + 7,272
Year 2	- 4,000 x .8264 = - $ 3,306	.8264 x + 8,000 = + 6,611
Year 3	- 20,000 x .7513 = + 15,026	.7513 x + 8,000 = + 6,010
	+ $ 2,993	.8264 x + 15,000 = + 12,396
		+ $ 8,289

Based on these figures, he would be better off to buy his cows rather than raise his replacements.

5. A farmer has found it necessary to replace his old combine. If he buys the same size as he presently operates, it will cost him $30,000. At the end of five years, he expects it will have a salvage value of $10,000. With a $45,000 combine, he could do some custom work which would net $3,000 per year. The larger machine is expected to have a salvage value of $15,000 at the end of five years. His cost of capital is 10 percent. Which machine should he purchase?

Using HO-2:

	- $30,000 x 1 =	- $30,000	- $45,000 x 1 =	- $45,000
Year 1		________	3,000 x .9090 =	2,727
Year 2		________	3,000 x .8264 =	2,479
Year 3		________	3,000 x .7513 =	2,254
Year 4		________	3,000 x .6830 =	2,049
Year 5	10,000 x .6209 =	- 6,209	15,000 x .6209 =	9,314
		- $23,791		- $26,177

His decision, based on these figures, would be to stay with the same size machine.

F. Group Discussion

Sufficient time should be allotted for enrollees to ask questions and discuss the concept of the time value of money. Be sure the discussion session enables farmers to be able to use the concept in making plans in their farming operations.

Administer the accompanying quiz to ascertain the level of knowledge in the area of the concept of the time value of money.

G. Conclusions

Conclusions which may be reached include:

1. Time affects the value of money.
2. Short term investments (less than one year) can be compared without using the concept of time value of money.
3. In order to make a fair comparison between two investments, we should calculate the incomes using present values.
4.
5.

H. Announcements

The next meeting will be held in October. I'll be sending out reminders to you.

I. Social

J. On-the-Farm Instruction

When visiting enrollees following this lesson, assist them in using the concept of time value of money in planning for his farm business.

HO-1

Table 1

FUTURE VALUE AT COMPOUND INTEREST

$F.V. = (1+i)^n$

Year	4%	5%	6%	7%	8%	9%	10%
1	1.0400	1.0500	1.0600	1.0700	1.0800	1.0900	1.1000
2	1.0816	1.1025	1.1236	1.1449	1.1664	1.1881	1.2100
3	1.1248	1.1576	1.1910	1.2250	1.2597	1.2950	1.3310
4	1.1698	1.2155	1.2624	1.3107	1.3604	1.4115	1.4641
5	1.2166	1.2762	1.3382	1.4025	1.4693	1.5386	1.6105
6	1.2653	1.3400	1.4185	1.5007	1.5868	1.6771	1.7715
7	1.3159	1.4071	1.5036	1.6058	1.7138	1.8280	1.9487
8	1.3685	1.4774	1.5938	1.7181	1.8509	1.9925	2.1435
9	1.4233	1.5513	1.6894	1.8384	1.9990	2.1718	2.3579
10	1.4802	1.6288	1.7908	1.9671	2.1589	2.3673	2.5937
11	1.5394	1.7103	1.8982	2.1048	2.3316	2.5804	2.8531
12	1.6010	1.7958	2.0121	2.2521	2.5181	2.8126	3.1384
13	1.6650	1.8856	2.1329	2.4098	2.7196	3.0658	3.4522
14	1.7316	1.9799	2.2609	2.5785	2.9371	3.3417	3.7974
15	1.8009	2.0789	2.3965	2.7590	3.1721	3.6424	4.1772
16	1.8729	2.1828	2.5403	2.9521	3.4259	3.9703	4.5949
17	1.9479	2.2920	2.6927	3.1588	3.7000	4.3276	5.0544
18	2.0258	2.4066	2.8543	3.3799	3.9960	4.7171	5.5599
19	2.1068	2.5269	3.0255	3.6165	4.3157	5.1416	6.1159
20	2.1911	2.6532	3.2071	3.8696	4.6609	5.6044	6.7274
21	2.2787	2.7859	3.3995	4.1405	5.0338	6.1088	7.4002
22	2.3699	2.9252	3.6035	4.4304	5.4365	6.6586	8.1402
23	2.4647	3.0715	3.8197	4.7405	5.8714	7.2578	8.9543
24	2.5633	3.2250	4.0489	5.0723	6.3411	7.9110	9.8497
25	2.6658	3.3863	4.2918	5.4274	6.8484	8.6230	10.8347
26	2.7724	3.5556	4.5493	5.8073	7.3963	9.3991	11.9181
27	2.8833	3.7334	4.8223	6.2138	7.9880	10.2450	13.1099
28	2.9987	3.9201	5.1116	6.6488	8.6271	11.1671	14.4209
29	3.1186	4.1161	5.4183	7.1142	9.3172	12.1721	15.8631
30	3.2433	4.3219	5.7434	7.6122	10.0626	13.2676	17.4494
31	3.3731	4.5380	6.0881	8.1451	10.8676	14.4617	19.1943
32	3.5080	4.7649	6.4533	8.7152	11.7370	15.7633	21.1137
33	3.6483	5.0031	6.8405	9.3253	12.6760	17.1820	23.2251
34	3.7943	5.2533	7.2510	9.9781	13.6901	18.7284	25.5476
35	3.9460	5.5160	7.6860	10.6765	14.7853	20.4139	28.1024
36	4.1039	5.7918	8.1472	11.4239	15.9681	22.2512	30.9126
37	4.2680	6.0814	8.6360	12.2236	17.2456	24.2538	34.0039
38	4.4388	6.3854	9.1542	13.0792	18.6252	26.4366	37.4043
39	4.6163	6.7047	9.7035	13.9948	20.1152	28.8160	41.1448
40	4.8010	7.0399	10.2857	14.9744	21.7245	31.4094	45.2592
41	4.9930	7.3919	10.9028	16.0226	23.4624	34.2362	49.7851
42	5.1927	7.7615	11.5570	17.1442	25.3394	37.3175	54.7636
43	5.4004	8.1496	12.2504	18.3443	27.3666	40.6761	60.2400
44	5.6165	8.5571	12.9854	19.6284	29.5559	44.3369	66.2640
45	5.8411	8.9850	13.7646	21.0024	31.9204	48.3272	72.8904
46	6.0748	9.4342	14.5904	22.4726	34.4740	52.6767	80.1795
47	6.3178	9.9059	15.4659	24.0457	37.2320	57.4176	88.1974
48	6.5705	10.4012	16.3938	25.7289	40.2105	62.5852	97.0172
49	6.8333	10.9213	17.3775	27.5299	43.4274	68.2179	106.7189
50	7.1066	11.4673	18.4201	29.4570	46.9016	74.3575	117.3908

Table 1 (cont)

Year	11%	12%	13%	14%	15%	16%
1	1.1100	1.1200	1.1300	1.1400	1.1500	1.1600
2	1.2321	1.2544	1.2769	1.2996	1.3225	1.3456
3	1.3676	1.4049	1.4428	1.4815	1.5208	1.5608
4	1.5180	1.5735	1.6304	1.6889	1.7490	1.8106
5	1.6850	1.7623	1.8424	1.9254	2.0113	2.1003
6	1.8704	1.9738	2.0819	2.1949	2.3130	2.4363
7	2.0761	2.2106	2.3526	2.5022	2.6600	2.8262
8	2.3045	2.4759	2.6584	2.8525	3.0590	3.2784
9	2.5580	2.7730	3.0040	3.2519	3.5178	3.8029
10	2.8394	3.1058	3.3945	3.7072	4.0455	4.4114
11	3.1517	3.4785	3.8358	4.2262	4.6523	5.1172
12	3.4984	3.8959	4.3345	4.8179	5.3502	5.9360
13	3.8832	4.3634	4.8980	5.4924	6.1527	6.8857
14	4.3104	4.8871	5.5347	6.2613	7.0757	7.9875
15	4.7845	5.4735	6.2542	7.1379	8.1370	9.2655
16	5.3108	6.1303	7.0673	8.1372	9.3576	10.7480
17	5.8950	6.8660	7.9860	9.2764	10.7612	12.4676
18	6.5435	7.6899	9.0242	10.5751	12.3754	14.4625
19	7.2633	8.6127	10.1974	12.0556	14.2317	16.7765
20	8.0623	9.6462	11.5230	13.7434	16.3665	19.4607
21	8.9491	10.8038	13.0210	15.6675	18.8215	22.5744
22	9.9335	12.1003	14.7138	17.8610	21.6447	26.1863
23	11.0262	13.5523	16.6266	20.3615	24.8914	30.3762
24	12.2391	15.1786	18.7880	23.2122	28.6251	35.2364
25	13.5854	17.0000	21.2305	26.4619	32.9189	40.8742
26	15.0798	19.0400	23.9905	30.1665	37.8567	47.4141
27	16.7386	21.3248	27.1092	34.3899	43.5353	55.0003
28	18.5799	23.8838	30.6334	39.2044	50.0656	63.8004
29	20.6236	26.7499	34.6158	44.6931	56.5754	74.0085
30	22.8922	29.9599	39.1158	50.9501	66.2117	85.8498
31	25.4104	33.5551	44.2009	58.0831	76.1435	99.5858
32	28.2055	37.5817	49.9470	66.2148	87.5650	115.5195
33	31.3082	42.0915	56.4402	75.4848	100.6998	134.0027
34	34.7521	47.1425	63.7774	86.0528	115.8047	155.4431
35	38.5748	52.7996	72.0685	98.1001	133.1755	180.3140
36	42.8180	59.1355	81.4374	111.8341	153.1518	209.1643
37	47.5280	66.2318	92.0242	127.4909	176.1246	242.6305
38	52.7561	74.1796	103.9874	145.3397	202.5433	281.4514
39	58.5593	83.0812	117.5057	165.6872	232.9248	326.4837
40	65.0008	93.0509	132.7815	188.8834	267.8635	378.7211
41	72.1509	104.2170	150.0431	215.3271	308.0430	439.3164
42	80.0875	116.7231	169.5487	245.4729	354.2495	509.6071
43	88.8971	130.7299	191.5900	279.8392	407.3869	591.1442
44	98.6758	146.4174	216.4297	319.0166	468.4949	685.7273
45	109.5302	163.9875	244.6413	363.6790	538.7692	795.4437
46	121.5785	183.6661	276.4447	414.5940	619.5845	922.7147
47	134.9522	205.7060	312.3825	472.6372	712.5222	1070.3491
48	149.7969	230.3907	352.9923	538.8064	819.4006	1241.6049
49	166.2746	258.0376	398.8813	614.2393	942.3106	1440.2617
50	184.5648	289.0021	450.7358	700.2328	1083.6573	1670.7035

Table 1 (cont)

Year	17%	18%	19%	20%
1	1.1700	1.1800	1.1900	1.2000
2	1.3689	1.3924	1.4161	1.4400
3	1.6016	1.6430	1.6851	1.7280
4	1.8738	1.9387	2.0053	2.0736
5	2.1924	2.2877	2.3863	2.4883
6	2.5651	2.6995	2.8397	2.9859
7	3.0012	3.1854	3.3793	3.5831
8	3.5114	3.7588	4.0213	4.2998
9	4.1084	4.4354	4.7854	5.1597
10	4.8068	5.2338	5.6946	6.1917
11	5.6239	6.1759	6.7766	7.4300
12	6.5800	7.2875	8.0642	8.9161
13	7.6986	8.5993	9.5964	10.6993
14	9.0074	10.1472	11.4197	12.8391
15	10.5387	11.9737	13.5895	15.4070
16	12.3303	14.1290	16.1715	18.4884
17	14.4264	16.6722	19.2441	22.1861
18	16.8789	19.6732	22.9005	26.6233
19	19.7483	23.2144	27.2516	31.9479
20	23.1055	27.3930	32.4294	38.3375
21	27.0335	32.3237	38.5910	46.0051
22	31.6292	38.1420	45.9233	55.2061
23	37.0062	45.0076	54.6487	66.2473
24	43.2972	53.1090	65.0319	79.4968
25	50.6578	62.6686	77.3880	95.3962
26	59.2696	73.9489	92.0917	114.2454
27	69.3454	87.2597	109.5892	137.3705
28	81.1342	102.9665	130.4112	164.8446
29	94.9270	121.5005	155.1893	197.8135
30	111.0646	143.3706	184.6752	237.3762
31	129.9456	169.1773	219.7636	284.8515
32	152.0363	199.6292	261.5186	341.8218
33	177.8825	235.5625	311.2072	410.1862
34	208.1226	277.9637	370.3366	492.2234
35	243.5034	327.9972	440.7005	590.6681
36	284.8990	387.0367	524.4336	708.8017
37	333.3318	456.7033	624.0760	850.5621
38	389.9982	538.9099	742.6504	1020.6746
39	456.2979	635.9137	883.7540	1224.8095
40	533.8686	750.3782	1051.6674	1469.7713
41	624.6263	885.4463	1251.4841	1763.7256
42	730.8127	1044.8267	1489.2661	2116.4707
43	855.0509	1232.8955	1772.2267	2539.7649
44	1000.4096	1454.8166	2108.9498	3047.7178
45	1170.4792	1716.6836	2509.6502	3657.2614
46	1369.4607	2025.6867	2986.4837	4388.7136
47	1602.2690	2390.3102	3553.9156	5266.4563
48	1874.6547	2820.5661	4229.1596	6319.7476
49	2193.3460	3328.2680	5032.6999	7583.6971
50	2566.2149	3927.3562	5988.9128	9100.4365

Table 2

PRESENT VALUE OF 1

$P.V.=1/(1+i)^n$

Year	4%	5%	6%	7%	8%	9%
1	0.9615	0.9523	0.9433	0.9345	0.9259	0.9174
2	0.9245	0.9070	0.8899	0.8734	0.8573	0.8416
3	0.8889	0.8638	0.8396	0.8163	0.7938	0.7721
4	0.8548	0.8227	0.7920	0.7629	0.7350	0.7084
5	0.8219	0.7835	0.7472	0.7130	0.6805	0.6499
6	0.7903	0.7462	0.7049	0.6663	0.6301	0.5962
7	0.7599	0.7106	0.6650	0.6227	0.5834	0.5470
8	0.7306	0.6768	0.6274	0.5820	0.5402	0.5018
9	0.7025	0.6446	0.5918	0.5439	0.5002	0.4604
10	0.6755	0.6139	0.5583	0.5083	0.4631	0.4224
11	0.6495	0.5846	0.5267	0.4751	0.4288	0.3875
12	0.6245	0.5568	0.4969	0.4440	0.3971	0.3555
13	0.6005	0.5303	0.4688	0.4150	0.3676	0.3262
14	0.5774	0.5050	0.4423	0.3878	0.3404	0.2992
15	0.5552	0.4810	0.4172	0.3624	0.3152	0.2745
16	0.5339	0.4581	0.3936	0.3387	0.2918	0.2518
17	0.5133	0.4362	0.3713	0.3166	0,2702	0.2310
18	0.4936	0.4155	0.3503	0.2959	0.2502	0.2119
19	0.4746	0.3957	0.3305	0.2765	0.2317	0.1944
20	0.4563	0.3768	0.3118	0.2584	0.2145	0.1784
21	0.4388	0.3589	0.2941	0.2415	0.1986	0.1636
22	0.4319	0.3418	0.2775	0.2257	0.1839	0.1501
23	0.4057	0.3255	0.2617	0.2109	0.1703	0.1337
24	0.3901	0.3100	0.2469	0.1971	0.1576	0.1264
25	0.3751	0.2953	0.2329	0.1842	0.1460	0.1159
26	0.3606	0.2812	0.2198	0.1722	0.1352	0.1063
27	0.3468	0.2678	0.2073	0.1609	0.1251	0.0976
28	0.3334	0.2550	0.1956	0.1504	0.1159	0.0895
29	0.3206	0.2429	0.1845	0.1406	0.1073	0.0821
30	0.3083	0.2313	0.1741	0.1314	0.0993	0.0753
31	0.2964	0.2203	0.1642	0.1228	0.0920	0.0691
32	0.2850	0.2098	0.1549	0.1147	0.0852	0.0634
33	0.2740	0.1998	0.1461	0.1072	0.0788	0.0582
34	0.2635	0.1903	0.1379	0.1002	0.0730	0.0533
35	0.2534	0.1812	0.1301	0.0936	0.0676	0.0489
36	0.2436	0.1726	0.1227	0.0875	0.0625	0.0449
37	0.2342	0.1644	0.1157	0.0818	0.0579	0.0412
38	0.2252	0.1566	0.1092	0.0765	0.0536	0.0378
39	0.2166	0.1491	0.1030	0.0715	0.0497	0.0347
40	0.2082	0.1420	0.0972	0.0668	0.0460	0.0318
41	0.2002	0.1352	0.0917	0.0624	0.0426	0.0292
42	0.1925	0.1288	0.0865	0.0583	0.0395	0.0267
43	0.1851	0.1227	0.0816	0.0545	0.0365	0.0245
44	0.1780	0.1168	0.0770	0.0509	0.0338	0.0225
45	0.1711	0.1112	0.0726	0.0476	0.0313	0.0206
46	0.1646	0.1059	0.0685	0.0445	0.0290	0.0189
47	0.1582	0.1009	0.0646	0.0416	0.0268	0.0174
48	0.1521	0.0961	0.0609	0.0389	0.0248	0.0159
49	0.1463	0.0915	0.0575	0.0363	0.0230	0.0146
50	0.1407	0.0872	0.0542	0.0339	0.0213	0.0134

Table 2
(continued)

PRESENT VALUE OF 1

$P.V.=1/(1+i)^n$

Year	10%	11%	12%	13%	14%
1	0.9090	0.9009	0.8928	0.8849	0.8771
2	0.8264	0.8116	0.7971	0.7831	0.7694
3	0.7513	0.7311	0.7117	0.6930	0.6749
4	0.6830	0.6587	0.6355	0.6133	0.5920
5	0.6209	0.5934	0.5674	0.5427	0.5193
6	0.5644	0.5346	0.5066	0.4803	0.4555
7	0.5131	0.4817	0.4523	0.4250	0.3996
8	0.4665	0.4339	0.4038	0.3761	0.3505
9	0.4240	0.3909	0.3606	0.3328	0.3075
10	0.3855	0.3521	0.3219	0.2945	0.2697
11	0.3509	0.3172	0.2874	0.2606	0.2366
12	0.3186	0.2858	0.2566	0.2307	0.2075
13	0.2896	0.2575	0.2291	0.2042	0.1820
14	0.2633	0.2319	0.2046	0.1806	0.1597
15	0.2393	0.2090	0.1826	0.1598	0.1400
16	0.2176	0.1882	0.1631	0.1414	0.1228
17	0.1978	0.1696	0.1456	0.1252	0.1077
18	0.1798	0.1528	0.1300	0.1108	0.0946
19	0.1635	0.1376	0.1161	0.0980	0.0829
20	0.1486	0.1240	0.1036	0.0867	0.0728
21	0.1351	0.1117	0.0925	0.0767	0.0638
22	0.1228	0.1006	0.0826	0.0679	0.0560
23	0.1116	0.0906	0.0737	0.0601	0.0491
24	0.1015	0.0817	0.0658	0.0532	0.0431
25	0.0922	0.0736	0.0588	0.0471	0.0378
26	0.0839	0.0663	0.0525	0.0416	0.0331
27	0.0762	0.0597	0.0468	0.0368	0.0291
28	0.0693	0.0538	0.0419	0.0326	0.0255
29	0.0630	0.0484	0.0373	0.0288	0.0223
30	0.0573	0.0436	0.0333	0.0255	0.0196
31	0.0520	0.0393	0.0298	0.0226	0.0172
32	0.0473	0.0354	0.0266	0.0200	0.0151
33	0.0430	0.0319	0.0237	0.0177	0.0132
34	0.0391	0.0287	0.0212	0.0156	0.0116
35	0.0355	0.0259	0.0189	0.0138	0.0101
36	0.0323	0.0233	0.0169	0.0122	0.0089
37	0.0294	0.0210	0.0150	0.0108	0.0078
38	0.0267	0.0189	0.0134	0.0096	0.0068
39	0.0243	0.0170	0.0120	0.0085	0.0060
40	0.0220	0.0153	0.0107	0.0075	0.0052
41	0.0200	0.0138	0.0095	0.0066	0.0046
42	0.0182	0.0124	0.0085	0.0058	0.0040
43	0.0166	0.0112	0.0076	0.0052	0.0035
44	0.0150	0.0101	0.0068	0.0046	0.0031
45	0.0137	0.0091	0.0060	0.0040	0.0027
46	0.0124	0.0082	0.0054	0.0036	0.0024
47	0.0113	0.0074	0.0048	0.0032	0.0021
48	0.0103	0.0066	0.0043	0.0028	0.0018
49	0.0093	0.0060	0.0038	0.0025	0.0016
50	0.0085	0.0054	0.0034	0.0022	0.0014

Table 2 (cont)

Year	15%	16%	17%	18%	19%	20%
1	0.8695	0.8620	0.8547	0.8474	0.8403	0.8333
2	0.7561	0.7431	0.7305	0.7181	0.7061	0.6944
3	0.6575	0.6406	0.6243	0.6086	0.5934	0.5787
4	0.5717	0.5522	0.5336	0.5157	0.4986	0.4822
5	0.4971	0.4761	0.4561	0.4371	0.4190	0.4018
6	0.4323	0.4104	0.3898	0.3704	0.3521	0.3348
7	0.3759	0.3538	0.3331	0.3139	0.2959	0.2790
8	0.3269	0.3050	0.2847	0.2660	0.2486	0.2325
9	0.2842	0.2629	0.2434	0.2254	0.2089	0.1938
10	0.2471	0.2266	0.2080	0.1910	0.1756	0.1615
11	0.2149	0.1954	0.1778	0.1619	0.1475	0.1345
12	0.1869	0.1684	0.1519	0.1372	0.1240	0.1121
13	0.1625	0.1452	0.1298	0.1162	0.1042	0.0934
14	0.1413	0.1251	0.1110	0.0985	0.0875	0.0778
15	0.1228	0.1079	0.0948	0.0835	0.0735	0.0649
16	0.1068	0.0930	0.0811	0.0707	0.0618	0.0540
17	0.0929	0.0802	0.0693	0.0599	0.0519	0.0450
18	0.0808	0.0691	0.0592	0.0508	0.0436	0.0375
19	0.0702	0.0596	0.0506	0.0430	0.0366	0.0313
20	0.0611	0.0513	0.0432	0.0365	0.0308	0.0260
21	0.0531	0.0442	0.0369	0.0309	0.0259	0.0217
22	0.0462	0.0381	0.0316	0.0262	0.0217	0.0181
23	0.0401	0.0329	0.0270	0.0222	0.0182	0.0150
24	0.0349	0.0283	0.0230	0.0188	0.0153	0.0125
25	0.0303	0.0244	0.0197	0.0159	0.0129	0.0104
26	0.0264	0.0210	0.0168	0.0135	0.0108	0.0087
27	0.0229	0.0181	0.0144	0.0114	0.0091	0.0072
28	0.0199	0.0156	0.0123	0.0097	0.0076	0.0060
29	0.0173	0.0135	0.0105	0.0082	0.0064	0.0050
30	0.0151	0.0116	0.0090	0.0069	0.0054	0.0042
31	0.0131	0.0100	0.0076	0.0059	0.0045	0.0035
32	0.0114	0.0086	0.0065	0.0050	0.0038	0.0029
33	0.0099	0.0074	0.0056	0.0042	0.0032	0.0024
34	0.0086	0.0064	0.0048	0.0035	0.0027	0.0020
35	0.0075	0.0055	0.0041	0.0030	0.0022	0.0016
36	0.0065	0.0047	0.0035	0.0025	0.0019	0.0014
37	0.0056	0.0041	0.0030	0.0021	0.0016	0.0011
38	0.0049	0.0035	0.0025	0.0018	0.0013	0.0009
39	0.0042	0.0030	0.0021	0.0015	0.0011	0.0008
40	0.0037	0.0026	0.0018	0.0013	0.0009	0.0006
41	0.0032	0.0022	0.0016	0.0011	0.0007	0.0005
42	0.0028	0.0019	0.0013	0.0009	0.0006	0.0004
43	0.0024	0.0016	0.0011	0.0008	0.0005	0.0003
44	0.0021	0.0014	0.0009	0.0006	0.0004	0.0003
45	0.0018	0.0012	0.0008	0.0005	0.0003	0.0002
46	0.0016	0.0010	0.0007	0.0004	0.0003	0.0002
47	0.0014	0.0009	0.0006	0.0004	0.0002	0.0001
48	0.0012	0.0008	0.0005	0.0003	0.0002	0.0001
49	0.0010	0.0006	0.0004	0.0003	0.0001	0.0001
50	0.0009	0.0005	0.0003	0.0002	0.0001	0.0001

1. Someone has offered to buy the timber in your woodlot for $13,000. You estimate that the same timber could be sold for $20,000 ten years from now. With an opportunity rate of 8 percent, should you sell now or wait ten years?

2. If you owe $4,000 due at the end of five years, what amount should your creditor accept in payment immediately if he can earn 8 percent for his money?

3. You are considering making an investment which would cost you $10,000. In one year, it would return $1,000; in year two, it would return $5,000; in year three, it would return $8,000. Assuming a 10 percent opportunity cost, would this be a good investment?

4. A dairy farmer has extra barn space and can purchase 30 cows

at $800 per head. This will increase his herd size from 50 to 80 cows. The alternative is to start 30 additional replacements now which will be added to the herd at the start of the third year.

The cows he is considering purchasing would add $6,000 per year to the net cash flow for three years. The cost of acquiring the 30 replacements will be $6,000 now, $3,000 for the first year and $4,000 the second year.

The salvage value of the purchased animals will be $500 each year after the second year. The value of the 30 raised replacements will be $20,000 at the start of year three.

If the cost of his capital is 10 percent, should he buy cows now or raise replacements?

5. A farmer has found it necessary to replace his old combine. If he buys the same size as he presently operates, it will cost him $30,000. At the end of five years, he expects it will have a salvage value of $10,000. With a $45,000 combine, he could do some custom work which would net $3,000 per year. The larger machine is expected to have a salvage value of $15,000 at the end of five years. His cost of capital is 10 percent. Which machine should he purchase?

Farm Business Management

and Analysis Program

Lesson 10 - Quiz

Using the attached tables, answer the following questions. Please show your figuring.

1. An individual can make an immediate payment now of $1,000 or pay back in three equal installments of $400 (first due one year from now). His time value of money is 10%. Ignoring income taxes, should he pay the $1,000 now or make three payments of $400 each?

2. If you owe $3,000 due in three years, what amount should your creditor accept in payment immediately if he can earn 10% on his money?

3. Your son is 15 years old. At age 18, you would like to give him a graduation present of $2,000. How much would you have to put in the bank now to have $2,000 in three years? Assume 8% return on your money.

Table 2

PRESENT VALUE OF 1

$P.V. = 1/(1+i)^n$

Year	4%	5%	6%	7%	8%	9%
1	0.9615	0.9523	0.9433	0.9345	0.9259	0.9174
2	0.9245	0.9070	0.8899	0.8734	0.8573	0.8416
3	0.8889	0.8638	0.8396	0.8163	0.7938	0.7721
4	0.8548	0.8227	0.7920	0.7629	0.7350	0.7084
5	0.8219	0.7835	0.7472	0.7130	0.6805	0.6499
6	0.7903	0.7462	0.7049	0.6663	0.6301	0.5962
7	0.7599	0.7106	0.6650	0.6227	0.5834	0.5470
8	0.7306	0.6768	0.6274	0.5820	0.5402	0.5018
9	0.7025	0.6446	0.5918	0.5439	0.5002	0.4604
10	0.6755	0.6139	0.5583	0.5083	0.4631	0.4224
11	0.6495	0.5846	0.5267	0.4751	0.4288	0.3875
12	0.6245	0.5568	0.4969	0.4440	0.3971	0.3555
13	0.6005	0.5303	0.4688	0.4150	0.3676	0.3262
14	0.5774	0.5050	0.4423	0.3878	0.3404	0.2992
15	0.5552	0.4810	0.4172	0.3624	0.3152	0.2745
16	0.5339	0.4581	0.3936	0.3387	0.2918	0.2518
17	0.5133	0.4362	0.3713	0.3166	0.2702	0.2310
18	0.4936	0.4155	0.3503	0.2959	0.2502	0.2119
19	0.4746	0.3957	0.3305	0.2765	0.2317	0.1944
20	0.4563	0.3768	0.3118	0.2584	0.2145	0.1784
21	0.4388	0.3589	0.2941	0.2415	0.1986	0.1636
22	0.4319	0.3418	0.2775	0.2257	0.1839	0.1501
23	0.4057	0.3255	0.2617	0.2109	0.1703	0.1337
24	0.3901	0.3100	0.2469	0.1971	0.1576	0.1264
25	0.3751	0.2953	0.2329	0.1842	0.1460	0.1159
26	0.3606	0.2812	0.2198	0.1722	0.1352	0.1063
27	0.3468	0.2678	0.2073	0.1609	0.1251	0.0976
28	0.3334	0.2550	0.1956	0.1504	0.1159	0.0895
29	0.3206	0.2429	0.1845	0.1406	0.1073	0.0821
30	0.3083	0.2313	0.1741	0.1314	0.0993	0.0753
31	0.2964	0.2203	0.1642	0.1228	0.0920	0.0691
32	0.2850	0.2098	0.1549	0.1147	0.0852	0.0634
33	0.2740	0.1998	0.1461	0.1072	0.0788	0.0582
34	0.2635	0.1903	0.1379	0.1002	0.0730	0.0533
35	0.2534	0.1812	0.1301	0.0936	0.0676	0.0489
36	0.2436	0.1726	0.1227	0.0875	0.0625	0.0449
37	0.2342	0.1644	0.1157	0.0818	0.0579	0.0412
38	0.2252	0.1566	0.1092	0.0765	0.0536	0.0378
39	0.2166	0.1491	0.1030	0.0715	0.0497	0.0347
40	0.2082	0.1420	0.0972	0.0668	0.0460	0.0318
41	0.2002	0.1352	0.0917	0.0624	0.0426	0.0292
42	0.1925	0.1288	0.0865	0.0583	0.0395	0.0267
43	0.1851	0.1227	0.0816	0.0545	0.0365	0.0245
44	0.1780	0.1168	0.0770	0.0509	0.0338	0.0225
45	0.1711	0.1112	0.0726	0.0476	0.0313	0.0206
46	0.1646	0.1059	0.0685	0.0445	0.0290	0.0189
47	0.1582	0.1009	0.0646	0.0416	0.0268	0.0174
48	0.1521	0.0961	0.0609	0.0389	0.0248	0.0159
49	0.1463	0.0915	0.0575	0.0363	0.0230	0.0146
50	0.1407	0.0872	0.0542	0.0339	0.0213	0.0134

Table 2
(continued)

PRESENT VALUE OF 1

$P.V.=1/(1+i)^n$

Year	10%	11%	12%	13%	14%
1	0.9090	0.9009	0.8928	0.8849	0.8771
2	0.8264	0.8116	0.7971	0.7831	0.7694
3	0.7513	0.7311	0.7117	0.6930	0.6749
4	0.6830	0.6587	0.6355	0.6133	0.5920
5	0.6209	0.5934	0.5674	0.5427	0.5193
6	0.5644	0.5346	0.5066	0.4803	0.4555
7	0.5131	0.4817	0.4523	0.4250	0.3996
8	0.4665	0.4339	0.4038	0.3761	0.3505
9	0.4240	0.3909	0.3606	0.3328	0.3075
10	0.3855	0.3521	0.3219	0.2945	0.2697
11	0.3509	0.3172	0.2874	0.2606	0.2366
12	0.3186	0.2858	0.2566	0.2307	0.2075
13	0.2896	0.2575	0.2291	0.2042	0.1820
14	0.2633	0.2319	0.2046	0.1806	0.1597
15	0.2393	0.2090	0.1826	0.1598	0.1400
16	0.2176	0.1882	0.1631	0.1414	0.1228
17	0.1978	0.1696	0.1456	0.1252	0.1077
18	0.1798	0.1528	0.1300	0.1108	0.0946
19	0.1635	0.1376	0.1161	0.0980	0.0829
20	0.1486	0.1240	0.1036	0.0867	0.0728
21	0.1351	0.1117	0.0925	0.0767	0.0638
22	0.1228	0.1006	0.0826	0.0679	0.0560
23	0.1116	0.0906	0.0737	0.0601	0.0491
24	0.1015	0.0817	0.0658	0.0532	0.0431
25	0.0922	0.0736	0.0588	0.0471	0.0378
26	0.0839	0.0663	0.0525	0.0416	0.0331
27	0.0762	0.0597	0.0468	0.0368	0.0291
28	0.0693	0.0538	0.0419	0.0326	0.0255
29	0.0630	0.0484	0.0373	0.0288	0.0223
30	0.0573	0.0436	0.0333	0.0255	0.0196
31	0.0520	0.0393	0.0298	0.0226	0.0172
32	0.0473	0.0354	0.0266	0.0200	0.0151
33	0.0430	0.0319	0.0237	0.0177	0.0132
34	0.0391	0.0287	0.0212	0.0156	0.0116
35	0.0355	0.0259	0.0189	0.0138	0.0101
36	0.0323	0.0233	0.0169	0.0122	0.0089
37	0.0294	0.0210	0.0150	0.0108	0.0078
38	0.0267	0.0189	0.0134	0.0096	0.0068
39	0.0243	0.0170	0.0120	0.0085	0.0060
40	0.0220	0.0153	0.0107	0.0075	0.0052
41	0.0200	0.0138	0.0095	0.0066	0.0046
42	0.0182	0.0124	0.0085	0.0058	0.0040
43	0.0166	0.0112	0.0076	0.0052	0.0035
44	0.0150	0.0101	0.0068	0.0046	0.0031
45	0.0137	0.0091	0.0060	0.0040	0.0027
46	0.0124	0.0082	0.0054	0.0036	0.0024
47	0.0113	0.0074	0.0048	0.0032	0.0021
48	0.0103	0.0066	0.0043	0.0028	0.0018
49	0.0093	0.0060	0.0038	0.0025	0.0016
50	0.0085	0.0054	0.0034	0.0022	0.0014

ATTACHMENT III

PERSONAL DATA
(Farmer)

1. Age

( ) less than 25
( ) 26 - 30
( ) 31 - 35
( ) 36 - 40
( ) 41 - 45
( ) 46 or more

2. Years Farming After High School or College if Attended

( ) less than 5
( ) 6 - 10
( ) 11 - 15
( ) 16 - 20
( ) 21 - 25
( ) 26 or more

3. Major Enterprises

( ) cash crops
( ) hogs
( ) beef
( ) dairy
( ) poultry
( ) sheep
( ) other ____________

4. Size of Business

Total Acres Operated

( ) 1 - 100
( ) 101 - 300
( ) 301 - 500
( ) 501 - 700
( ) 701 - 900
( ) 901 or more

Acres of Row Crops

( ) 0 - 100
( ) 101 - 200
( ) 201 - 300
( ) 301 - 400
( ) 401 - 500
( ) 501 or more

Hogs Marketed Annually

( ) 0 - 100
( ) 101 - 200
( ) 201 - 300
( ) 301 - 400
( ) 401 - 500
( ) 501 or more

Cattle Marketed Annually

( ) 0 - 100
( ) 101 - 200
( ) 201 - 300
( ) 301 - 400
( ) 401 - 500
( ) 501 or more

Dairy Cows in Milk Line

( ) 0 - 30
( ) 31 - 60
( ) 61 - 90
( ) 91 - 120
( ) 121 or more

5. Debt

( ) $ 0 - $ 25,000
( ) 25,001 - 50,000
( ) 50,001 - 100,000
( ) $100,001 - 150,000
( ) 150,000 - 200,000
( ) over 200,000

6. Off-Farm Family Income

( ) $ 0 - $2500
( ) 2501 - 5000
( ) 5001 - 7500
( ) $7501 - 10,000
( ) over 10,000

7. Do You

( ) own ( ) rent or lease ( ) both

8. Is Your Farm Operation Best Described As:

( ) single proprietorship
( ) partnership
( ) family corporation

9. Educational Background

High School Vocational Agriculture

( ) none
( ) 1 - 2 years
( ) 3 - 4 years

Post Secondary

( ) none
( ) less than baccalaureate agriculture related
( ) less than baccalaureate non-agriculture related
( ) baccalaureate or above in agriculture
( ) baccalaureate or above in non-agriculture

10. Financial Records

Do you feel your farm record system is adequate? Does it provide you with the information you need to do an adequate job of planning your farm operations? Yes _____ No _____

11. What record system do you use for keeping farm business records?

_____ a. Missouri Looseleaf Record Book
_____ b. Missouri Farm Tax Record
_____ c. FmHA, Farm Family Record
_____ d. PCA Agrifacts
_____ e. MO Farm Business Analysis (Young Farmer Record Book)
_____ f. MO Mail In Record
_____ g. Other

12. Have you improved your farm record system the past year? Yes _____ No _____

13. What was your approximate farm operating expense last year? $_______________

FUTURE PLANS

(5 years)

_____ Purchase additional land.
_____ Rent additional land.
_____ Maintain present acerage (change crop percentage).
_____ Increase present livestock enterprises.
_____ Add new livestock enterprises.
_____ Major machinery investment.
_____ Major building investment.

FINANCIAL MANAGEMENT COMPETENCIES

Please respond to the following set of competencies or activities in relationship to their importance for a farmer to be successful. Confine your answers to the following set of numbers and their corresponding meanings.

1-no importance; 2-little importance; 3-important; 4-very important; and, 5-essential

1. Be able to develop a planned cash flow for use in the farming business for the upcoming year. 1 2 3 4 5
2. Be able to analyze a planned cash flow for use in the farming business for the upcoming year. 1 2 3 4 5
3. Be able to interpret a planned cash flow for use in the farming business for the coming year. 1 2 3 4 5
4. Be able to use and monitor a planned cash flow for use in the farming business throughout the year. 1 2 3 4 5
5. Be able to base decision making in the area of cash flow on the analysis of enterprise budgets. 1 2 3 4 5
6. Be able to develop realistic family and farm business goals which give consideration to family living requirements and business requirements over the next five years. 1 2 3 4 5
7. Be able to record expenses and receipts and determine gross profit. 1 2 3 4 5
8. Be able to complete a profit and loss statement for their farming business. 1 2 3 4 5
9. Be able to analyze a profit and loss statement for their farming business. 1 2 3 4 5
10. Be able to use a profit and loss statement to make managerial decisions for their farming business. 1 2 3 4 5
11. Be able to complete a financial statement for their farming business. 1 2 3 4 5

12. Be able to use a financial statement based on their farming business. 1 2 3 4 5

13. Be able to use a financial statement based on their farming business to make managerial decisions. 1 2 3 4 5

14. Be able to develop an inventory system for all property owned. 1 2 3 4 5

15. Be able to develop a depreciation schedule for depreciable items owned. 1 2 3 4 5

16. Be able to calculate fixed and variable costs data. 1 2 3 4 5

17. Be able to analyze fixed and variable costs data.to use in making managerial decisions. 1 2 3 4 5

18. Be able to analyze an asset to liability ratio to make managerial decisions for the farming business. 1 2 3 4 5

19. Be able to analyze a current asset to current liability ratio to make managerial decisions for the farming business. 1 2 3 4 5

20. Be able to analyze ratio of capital turnover to make managerial decisions for the farming business. 1 2 3 4 5

21. Be able to analyze a net income to current debt ratio to make managerial decisions for the farming business. 1 2 3 4 5

22. Be able to compute a fourth quarter analysis of their farming business to be used for tax planning. 1 2 3 4 5

23, Be able to complete State and Federal Income tax forms. 1 2 3 4 5

24. Be able to utilize the concept of time value of money in making managerial decisions. 1 2 3 4 5

25. Be able to make managerial decisions concerning efficiency factors for a given livestock enterprise. 1 2 3 4 5

26. Be able to make managerial decisions concerning efficiency factors for a given crop enterprise. 1 2 3 4 5

27. Be able to make managerial decisions concerning labor efficiency for their farming operation. 1 2 3 4 5

28. Be able to make managerial decisions concerning the rate of return on investment for various farm enterprises and for entire farm. 1 2 3 4 5

29. Be able to make managerial decisions concerning capital gain/loss. 1 2 3 4 5

30. Be able to make managerial decisions involving buying, renting and leasing facilities and machinery. 1 2 3 4 5

31. Be able to analyze credit needs, sources, and interest rates in terms of the short, intermediate and long term loans. 1 2 3 4 5

32. Be able to utilize the concept of financial leverage in maximizing profits. 1 2 3 4 5

33. Be able to analyze the potential for expansions of the farm business. 1 2 3 4 5

34. Be able to make managerial decisions involving buying, renting and leasing land. 1 2 3 4 5

35. Be able to develop lease and partnership agreements that are equitable to all parties. 1 2 3 4 5

Additional competencies needed?

Additional Remote Computer Programs needed?

PERSONAL DATA
(Instructor)

1. Age

( ) less than 25
( ) 26 - 30
( ) 31 - 35
( ) 36 - 40
( ) 41 - 45
( ) 46 or more

2. Residence

( ) rural - farm
( ) rural - non-farm (town of less than 2500)
( ) urban (town or city of 2500 or more)

3. Educational Background

( ) B.S.
( ) M.S.
( ) Specialist
( ) Ph.D.

4. High School Vocational Agriculture

( ) none
( ) 1 - 2 years
( ) 3 - 4 years

5. Years Teaching

( ) less than 5
( ) 6 - 10
( ) 11 - 15
( ) 16 - 20
( ) 21 - 25
( ) 26 or more

6. Present Teaching Responsibility

( ) full time adult or young farmer
( ) less than full time but ½ time or more adult or young farmer
( ) less than ½ time adult or young farmer

7. Number of Different Occupational Positions You Have Held

( ) 1 - 2
( ) 3 - 4
( ) 5 or more

8. Farm Involvement

( ) none ( ) operator
( ) owner or renter ( ) manager
( ) both operator and manager

9. Farm Income (Other than Your Teaching Salary) (Before Taxes)

( ) $ 0 - 2500 ( ) $7501 - 10,000
( ) 2501 - 5000 ( ) over 10,000
( ) 5001 - 7500

10. Debt

( ) $ 0 - $ 25,000 ( ) $100,001 - 150,000
( ) 25,001 - 50,000 ( ) 150,001 - 200,000
( ) 50,001 - 100,000 ( ) over 200,000

FINANCIAL RECORDS

1. What record system do you use for keeping farm business records?

_____ a. Missouri Looseleaf Record Book
_____ b. Missouri Farm Tax Record
_____ c. FmHA, Farm Family Record
_____ d. PCA Agrifacts
_____ e. MO Farm Business Analysis (Young Farmer Record Book)
_____ f. MO Mail In Record

2. Do you feel your farm record system is adequate? Does it provide you with the information you need to do an adequate job of planning your farm operation?

YES _____ NO _____

3. Have you improved your farm record system the past year?

YES _____ NO _____

4. What was your approximate farm operating expense last year?

$_______________________

FUTURE PLANS
(5 years)

_____ Purchase additional land.

_____ Rent additional land.

_____ Maintain present acerage (change crop percentage).

_____ Increase present livestock enterprises.

_____ Add new livestock enterprises.

_____ Major machinery investment.

_____ Major building investment.

FINANCIAL MANAGEMENT COMPETENCIES

Please respond to the following set of competencies or activities in relationship to their importance for a farmer to be successful. Confine your answers to the following set of numbers and their corresponding meanings.

1-no importance; 2-little importance; 3-important; 4-very important; and, 5-essential

1. Be able to develop a planned cash flow for use in the farming business for the upcoming year. 1 2 3 4 5
2. Be able to analyze a planned cash flow for use in the farming business for the upcoming year. 1 2 3 4 5
3. Be able to interpret a planned cash flow for use in the farming business for the coming year. 1 2 3 4 5
4. Be able to use and monitor a planned cash flow for use in the farming business throughout the year. 1 2 3 4 5
5. Be able to base decision making in the area of cash flow on the analysis of enterprise budgets. 1 2 3 4 5
6. Be able to develop realistic family and farm business goals which give consideration to family living requirements and business requirements over the next five years. 1 2 3 4 5
7. Be able to record expenses and receipts and determine gross profit. 1 2 3 4 5
8. Be able to complete a profit and loss statement for their farming business. 1 2 3 4 5
9. Be able to analyze a profit and loss statement for their farming business. 1 2 3 4 5
10. Be able to use a profit and loss statement to make managerial decisions for their farming business. 1 2 3 4 5
11. Be able to complete a financial statement for their farming business. 1 2 3 4 5

12. Be able to use a financial statement based on their farming business. 1 2 3 4 5

13. Be able to use a financial statement based on their farming business to make managerial decisions. 1 2 3 4 5

14. Be able to develop an inventory system for all property owned. 1 2 3 4 5

15. Be able to develop a depreciation schedule for depreciable items owned. 1 2 3 4 5

16. Be able to calculate fixed and variable costs data. 1 2 3 4 5

17. Be able to analyze fixed and variable costs data.to use in making managerial decisions. 1 2 3 4 5

18. Be able to analyze an asset to liability ratio to make managerial decisions for the farming business. 1 2 3 4 5

19. Be able to analyze a current asset to current liability ratio to make managerial decisions for the farming business. 1 2 3 4 5

20. Be able to analyze ratio of capital turnover to make managerial decisions for the farming business. 1 2 3 4 5

21. Be able to analyze a net income to current debt ratio to make managerial decisions for the farming business. 1 2 3 4 5

22. Be able to compute a fourth quarter analysis of their farming business to be used for tax planning. 1 2 3 4 5

23, Be able to complete State and Federal Income tax forms. 1 2 3 4 5

24. Be able to utilize the concept of time value of money in making managerial decisions. 1 2 3 4 5

25. Be able to make managerial decisions concerning efficiency factors for a given livestock enterprise. 1 2 3 4 5

26. Be able to make managerial decisions concerning efficiency factors for a given crop enterprise. 1 2 3 4 5

27. Be able to make managerial decisions concerning labor efficiency for their farming operation. 1 2 3 4 5

28. Be able to make managerial decisions concerning the rate of return on investment for various farm enterprises and for entire farm. 1 2 3 4 5

29. Be able to make managerial decisions concerning capital gain/loss. 1 2 3 4 5

30. Be able to make managerial decisions involving buying, renting and leasing facilities and machinery. 1 2 3 4 5

31. Be able to analyze credit needs, sources, and interest rates in terms of the short, intermediate and long term loans. 1 2 3 4 5

32. Be able to utilize the concept of financial leverage in maximizing profits. 1 2 3 4 5

33. Be able to analyze the potential for expansions of the farm business. 1 2 3 4 5

34. Be able to make managerial decisions involving buying, renting and leasing land. 1 2 3 4 5

35. Be able to develop lease and partnership agreements that are equitable to all parties. 1 2 3 4 5

Additional competencies needed?

Additional Remote Computer Programs needed?

PERSONAL DATA
(Credit)

1. Age

( ) less than 25
( ) 26 - 30
( ) 31 - 35
( ) 36 - 40
( ) 41 - 45
( ) 46 or more

2. Residence

( ) rural - farm
( ) rural - non-farm (town of less than 2500)
( ) urban (town or city of 2500 or more)

3. Educational Background
High School Vocational Agriculture

( ) none
( ) 6 - 10
( ) 11 - 15
( ) B.S.
( ) M.S.
( ) other

4. Years in Credit

( ) less than 5
( ) 6 - 10
( ) 11 - 15
( ) 16 - 20
( ) 21 - 25
( ) 26 or more

5. Number of Different Occupational Positions You Have Held

( ) 1 - 2
( ) 3 - 4
( ) 5 or more

6. Farm Involvement

( ) none
( ) owner
( ) both operator and manager
( ) operator
( ) manager

7. Farm Income Other than Your Credit Salary (Before Taxes)

( ) $ 0 - 2500
( ) 2501 - 5000
( ) 5001 - 7500
( ) $7501 - 10,000
( ) over 10,000

8. Debt

( ) $ 0 - $ 25,000
( ) 25,001 - 50,000
( ) 50,001 - 100,000
( ) $100,001 - 150,000
( ) 150,001 - 200,000
( ) over 200,000

FINANCIAL RECORDS

1. What record system do you use for keeping farm business records?

_____ a. Missouri Looseleaf Record Book
_____ b. Missouri Farm Tax Record Book
_____ c. FmHA, Farm Family Record
_____ d. PCA Agrifacts
_____ e. MO Farm Business Analysis (Young Farmer Record Book)
_____ f. MO Mail In Record
_____ g. Other: ______________________________

2. Do you feel your farm record system is adequate? Does it provide you with the information you need to do an adequate job of planning your farm operations?

YES _____ NO _____

3. Have you improved your farm record system the past year?

YES _____ NO _____

4. What was your approximate farm operating expense last year?

$____________________

FUTURE PLANS
(5 years)

_____ Purchase additional land.

_____ Rent additional land.

_____ Maintain present acerage (change crop percentage).

_____ Increase present livestock enterprises.

_____ Add new livestock enterprises.

_____ Major machinery investment.

_____ Major building investment.

FINANCIAL MANAGEMENT COMPETENCIES

Please respond to the following set of competencies or activities in relationship to their importance for a farmer to be successful. Confine your answers to the following set of numbers and their corresponding meanings.

1-no importance; 2-little importance; 3-important; 4-very important; and, 5-essential

1. Be able to develop a planned cash flow for use in the farming business for the upcoming year. 1 2 3 4 5
2. Be able to analyze a planned cash flow for use in the farming business for the upcoming year. 1 2 3 4 5
3. Be able to interpret a planned cash flow for use in the farming business for the coming year. 1 2 3 4 5
4. Be able to use and monitor a planned cash flow for use in the farming business throughout the year. 1 2 3 4 5
5. Be able to base decision making in the area of cash flow on the analysis of enterprise budgets. 1 2 3 4 5
6. Be able to develop realistic family and farm business goals which give consideration to family living requirements and business requirements over the next five years. 1 2 3 4 5
7. Be able to record expenses and receipts and determine gross profit. 1 2 3 4 5
8. Be able to complete a profit and loss statement for their farming business. 1 2 3 4 5
9. Be able to analyze a profit and loss statement for their farming business. 1 2 3 4 5
10. Be able to use a profit and loss statement to make managerial decisions for their farming business. 1 2 3 4 5
11. Be able to complete a financial statement for their farming business. 1 2 3 4 5

12. Be able to use a financial statement based on their farming business. 1 2 3 4 5

13. Be able to use a financial statement based on their farming business to make managerial decisions. 1 2 3 4 5

14. Be able to develop an inventory system for all property owned. 1 2 3 4 5

15. Be able to develop a depreciation schedule for depreciable items owned. 1 2 3 4 5

16. Be able to calculate fixed and variable costs data. 1 2 3 4 5

17. Be able to analyze fixed and variable costs data.to use in making managerial decisions. 1 2 3 4 5

18. Be able to analyze an asset to liability ratio to make managerial decisions for the farming business. 1 2 3 4 5

19. Be able to analyze a current asset to current liability ratio to make managerial decisions for the farming business. 1 2 3 4 5

20. Be able to analyze ratio of capital turnover to make managerial decisions for the farming business. 1 2 3 4 5

21. Be able to analyze a net income to current debt ratio to make managerial decisions for the farming business. 1 2 3 4 5

22. Be able to compute a fourth quarter analysis of their farming business to be used for tax planning. 1 2 3 4 5

23, Be able to complete State and Federal Income tax forms. 1 2 3 4 5

24. Be able to utilize the concept of time value of money in making managerial decisions. 1 2 3 4 5

25. Be able to make managerial decisions concerning efficiency factors for a given livestock enterprise. 1 2 3 4 5

26. Be able to make managerial decisions concerning efficiency factors for a given crop enterprise. 1 2 3 4 5

27. Be able to make managerial decisions concerning labor efficiency for their farming operation. 1 2 3 4 5

28. Be able to make managerial decisions concerning the rate of return on investment for various farm enterprises and for entire farm. 1 2 3 4 5

29. Be able to make managerial decisions concerning capital gain/loss. 1 2 3 4 5

30. Be able to make managerial decisions involving buying, renting and leasing facilities and machinery. 1 2 3 4 5

31. Be able to analyze credit needs, sources, and interest rates in terms of the short, intermediate and long term loans. 1 2 3 4 5

32. Be able to utilize the concept of financial leverage in maximizing profits. 1 2 3 4 5

33. Be able to analyze the potential for expansions of the farm business. 1 2 3 4 5

34. Be able to make managerial decisions involving buying, renting and leasing land. 1 2 3 4 5

35. Be able to develop lease and partnership agreements that are equitable to all parties. 1 2 3 4 5

Additional competencies needed?

Additional Remote Computer Programs needed?

ATTACHMENT IV

FINANCIAL MANAGEMENT COMPETENCIES

Please respond to the following set of competencies or activities in relationship to their importance for a farmer to be successful. Confine your answers to the following set of numbers and their corresponding meanings.

1-no importance; 2-little importance; 3-important; 4-very important; and, 5-essential

	Credit Person's Responses		Instructor's Responses		Farmer's Responses	
	mean	S.D.	mean	S.D.	mean	S.D.
1. Be able to develop a planned cash flow for use in the farming business for the upcoming year.	4.30	1.16	4.80	.42	4.68	.59
2. Be able to analyze a planned cash flow for use in the farming business for the upcoming year.	4.10	.99	4.60	.52	4.62	.64
3. Be able to interpret a planned cash flow for use in the farming business for the coming year.	4.10	1.20	4.60	.52	4.76	.48
4. Be able to use and monitor a planned cash flow for use in the farming business throughout the year.	4.00	1.15	4.80	.42	4.44	.70
5. Be able to base decision making in the area of cash flow on the analysis of enterprise budgets.	3.80	1.23	4.20	1.03	4.38	.75
6. Be able to develop realistic family and farm business goals which give consideration to family living requirements and business requirements over the next five years.	3.60	1.17	4.40	.70	4.40	.78
7. Be able to record expenses and receipts and determine gross profit.	4.70	.67	4.70	.67	4.70	.58
8. Be able to complete a profit and loss statement for their farming business.	4.50	.53	4.60	.70	4.56	.61

9. Be able to analyze a profit and loss statement for their farming business.	4.20	.92	4.30	1.06	4.46	.71
10. Be able to use a profit and loss statement to make managerial decisions for their farming business.	4.20	.92	4.40	.97	4.50	.71
11. Be able to complete a financial statement for their farming business.	4.60	.52	4.80	.42	4.54	.73
12. Be able to use a financial statement based on their farming business.	4.00	.82	4.60	.52	4.34	.77
13. Be able to use a financial statement based on their farming business to make managerial decisions.	4.10	.74	4.70	.48	4.32	.79
14. Be able to develop an inventory system for all property owned.	4.10	.88	4.30	.95	4.08	.94
15. Be able to develop a depreciation schedule for depreciable items owned.	3.80	.92	4.20	1.03	4.50	.74
16. Be able to calculate fixed and variable costs data.	3.60	.84	4.10	.74	4.16	.98
17. Be able to analyze fixed and variable costs data to use in making managerial decisions.	3.70	.67	4.10	.74	4.08	1.05
18. Be able to analyze an asset to current liability ratio to make managerial decisions for the farming business.	3.60	.70	4.30	.67	4.12	1.14
19. Be able to analyze a current asset to current liability ratio to make managerial decisions for the farming business.	3.80	.79	4.30	.67	4.12	1.15
20. Be able to analyze ratio of capital turnover to make managerial decisions for the farming business.	3.20	1.03	3.90	.57	4.04	1.18

21. Be able to analyze a net income to current debt ratio to make managerial decisions for the farming business.	3.80	.63	4.10	.57	4.14	1.14
22. Be able to compute a fourth quarter analysis of their farming business to be used for tax planning.	3.60	.84	4.90	.32	4.52	.76
23. Be able to complete State and Federal Income tax forms.	3.00	.67	3.30	1.25	3.40	1.44
24. Be able to utilize the concept of time value of money in making managerial decisions.	3.40	1.26	3.80	.92	4.04	1.07
25. Be able to make managerial decisions concerning efficiency factors for a given livestock enterprise.	3.70	.95	4.60	.52	4.52	.81
26. Be able to make managerial decisions concerning efficiency factors for a given crop enterprise.	3.90	.88	4.40	.70	4.52	.68
27. Be able to make managerial decisions concerning labor efficiency for their farming operation.	3.70	1.06	4.40	.70	4.38	.78
28. Be able to make managerial decisions concerning the rate of return on investment for various farm enterprises and for entire farm.	4.10	.57	4.50	.53	4.42	.81
29. Be able to make managerial decisions concerning capital gain/loss.	3.30	1.49	4.40	.52	4.54	.73
30. Be able to make managerial decisions involving buying, renting and leasing facilities and machinery.	4.30	.67	4.30	.67	4.62	.70
31. Me able to analyze credit needs, sources, and interest rates in terms of the short, intermediate and long term loans.	4.70	.48	4.67	.50	4.70	.86

32. Be able to utilize the concept of financial leverage in maximizing profits.	3.70	.67	4.30	.67	4.46	.71
33. Be able to analyze the potential for expansions of the farm business.	4.00	.82	4.70	.48	4.54	.91
34. Be able to make managerial decisions involving buying, renting and leasing land.	4.30	.48	4.89	.33	4.62	.78
35. Be able to develop lease and partnership agreements that are equitable to all parties.	3.50	1.18	4.60	.52	4.30	1.18
OVERALL	3.91	.95	4.41	.74	4.39	.90

FARMER'S
BIOGRAPHICAL DATA
(Percentages)

Age

16 = < 25
24 = 26-30
24 = 31-35
12 = 36-40
14 = 41-45
10 = > 45

Years Farming After High School

22 = < 5
30 = 6-10
16 = 11-15
14 = 16-20
12 = 21-25
6 = > 25

Row Crops

92 = yes
8 = no

Hogs

64 = yes
36 = no

Beef

72 = yes
28 = no

Dairy

16 = yes
84 = no

Poultry

0 = yes
100 = no

Sheep

0 = yes
100 = no

Other

4 = yes
96 = no

Size Of Business (acres)

4 = 1-100
14 = 101-300
18 = 301-500
14 = 501-700
10 = 701-900
40 = > 900

Acres Row Crop

16 = 0-100
12 = 101-200
10 = 201-300
10 = 301-400
12 = 401-500
30 = > 500
10 = N/A

Hogs Marketed Annually

6 = 0-100
0 = 101-200
10 = 201-300
8 = 301-400
8 = 401-500
32 = > 500
36 = N/A

Cattle Marketed Annually

62 = 0-100
10 = 101-200
6 = 201-300
2 = 301-400
0 = 401-500
0 = > 500
18 = N/A

Dairy Cows In Milk Line

2 = 0- 30
4 = 31- 60
4 = 61- 90
2 = 91-120
4 = > 120
84 = N/A

Debt

22 = $ 0- 25,000
20 = 25,001- 50,000
20 = 50,001-100,000
12 = 100,001-150,000
8 = 150,001-200,000
18 = > 200,000

Do You:

22 = own
24 = rent
54 = both

Off-Farm Family Income

46 = $ 0- 2,500
10 = 2,501- 5,000
2 = 5,001- 7,500
20 = 7,501-10,000
22 = > 10,000

Farm Operation Description

52 = Single Proprietorship
34 = Partnership
14 = Family Corporation

High School Vocational Agriculture

24 = none
8 = 1-2 years
68 = 3-4 years

Farm Records Adequate

76 = yes
24 = no

Have You Improved Records?

34 = yes
66 = no

Post-Secondary

40 = none
26 = less than B.S., Agriculture
10 = less than B.S., Non-Agriculture
20 = B.S. or above, Agriculture
4 = B.S. or above, Non-Agriculture

Records

10 = MO Looseleaf Record Book
0 = MO Farm Tax Record
6 = FmHA, Farm Family Record
0 = PCA Agrifacts
40 = MO Farm Business Analysis
8 = MO Mail In Record
36 = Other

Operating Expense

6 = $ 0- 2,500
2 = 2,501- 5,000
0 = 5,001-10,000

18 = $10,001- 25,000
26 = 25,001- 50,000
22 = 50,001-100,000

20 = $100,001-150,000
4 = 150,001-200,000
2 = > 200,000

Purchase Additional Land

74 = yes
26 = no

Maintain Present Acerage

16 = yes
84 = no

Add New Livestock

24 = yes
76 = no

Major Building Investment

68 = yes
32 = no

Rent Additional Land

52 = yes
48 = no

Increase Present Livestock

64 = yes
36 = no

Major Machinery Investment

82 = yes
18 = no

Additional Competencies

34 = yes
66 = no

Additional RCP

34 = yes
66 = no

ATTACHMENT V

The following forms are preliminary drafts only.

BEST COPY AVAILABLE

FARM IDENTIFICATION SHEET
(Submit to Data Service Center)

Management Analysis Program

	County	Farm No.	Year
FARM I.D.	7 1 0	0 0 0	7 9

FIELDMAN No. 0 ☐ ☐

NAME

COUNTY

Complete Farm and Fieldman I.D. number as shown on latest master list

CARD NO. 1 - - I.D. STATUS:

0 1 0 0 0 0 0 0 0 0 0 0 0

STATUS: 3
Drop -2
Add -3
Change -4

SOCIAL SECURITY NUMBER: 4 9 2 - 5 6 - 0 0 7 8

EMPLOYERS I.D. NUMBER: ☐☐-☐☐☐☐☐☐☐☐

1. STATUS BOX applies only to I.D. number and information on Card No. 1. Whenever status box is marked the fieldman number must always appear on Card No. 1 and all data on Card No. 1 completed.
2. NEW COOPERATORS - complete information for all four cards including county, farm, year and fieldman number. Assign only unused county-farm numbers.
3. DROP – when status "2" (drop) is marked, the name will drop from the master list and all information on the record will be dropped.

INCOME TAX: 1
Cash -1
Accrual -2

TELEPHONE NUMBER: 8 8 2 7 4 5 1

TELEPHONE EXCHANGE: C o l u m b i a

Additional Depreciation Limit: 2 0 0 0

SAND Irrigated -1 Non - Irrig. -2: ☐

Allocated Depr. - 1: 1

Last Month Fiscal Year: 1 2

	County	Farm
FARM I.D.	7 1 0	0 0 0

Fieldman No. NUMBER: 0 ☐ ☐

CARD NO. 2 - - COOPERATOR NAME:

0 2 0 0 0 0 0 0 0 0 0 0 0

House (Last) Lou (First) A (Middle Initial)

NAME CHANGE – Complete Farm and Fieldman I.D. information. Enter correct name on Card No. 2. Make no entry on Card No. 1.

CARD NO. 3 - - ROUTE OR STREET ADDRESS:

0 3 0 0 0 0 0 0 0 0 0 0 0

Rt 1 (Street or Route)

ADDRESS CHANGE – Complete Farm and Fieldman I.D. information. Enter correct route or street address on Card No. 3. Make no entry on Card No. 1.

CARD NO. 4 - - CITY AND STATE ADDRESS:

0 4 0 0 0 0 0 0 0 0 0 0 0

Anywhere (City) Mo. (State) 16061 (Zip Code)

ADDRESS CHANGE – Complete Farm and Fieldman I.D. information. Enter correct city and state address on Card No. 4. Make no entry on Card No. 1.

FOR DETAILED INSTRUCTIONS SEE "INSTRUCTIONS AND CODE FOR DEPRECIATION PROGRAM, AE 4378 - July - 1977

management
analysis
program

UPDATE AND DELETE DATA

	County	Farm No.	Year
FARM I.D.	7 1	0 0 0 0	7 9
FIELDMAN No.			

NAME Lou House

COUNTY Boone

11							1	1	1	4	1	8	8	8	8	1	1	1		8	6
Transaction																					
Major	Minor	Tax I.D.	Category	Detail	Enterprise	Item No.	Lld. or Opr.	Type Code	New(1) Used(2)	Bought Mo. Yr.	Initial Yr. 0-4	Initial Basis	R.C. of Item Traded	Salvage Value	Investment Credit Taken	I.C. Taken 0, 1, 2, or 3	20% Yes-1 No-2	SL1 SL2 DB3 SD4	Years Except for SL 2 Use Amount	Remaining Cost Beginning of Year	Description
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
3	4	▨	0 3	1 2	1 1	9 1	1	4	1	04 66	1	$ 900	0	100	63	3		1	10	100	5-16 S
3	4	▨	0 3	0 3	1 1	9 1	1	4	1	08 66	2	1500	300	150	105	3		1	10	150	
3	4	▨	0 3	0 6	1 1	9 1	1	4		04 67	1	1200	100	200	84	3		1	10	200	14 ft
3	4	▨	0 3	1 4	1 1	9 1	1	4		05 72	2	8500	3100	850	0	0	1	1	8	850	4020
3	4	▨	0 3	1 4	3 9	9 2	1	4		01 76	4	14000	0	1200	1400	3	1	1	8	6200	4430
3	4	▨	0		0 0			4	1	7							2				
3	4	▨	0		0 0			4	1	7	4						2				
3	4	▨	0					4		7											
3	4	▨	0					4		7	4										
3	4	▨	0					4	1	7	4						2				
3	4	▨	0		0			4		7							2				
3	4	▨	0		0			4		7							2				
3	4	▨	0		0			4		7	4						2				
3	4	▨	0		0			4		7	4						2				
3	4	▨	0		0 0			4		7	4						2				
3	4	▨	0		0 0			4		7	4						2				
3	4	▨	0		0 0			4	1	7	4						2				
3	4	▨	0		0 0			4	1	7	4						2				

ENTER DELETED ITEMS BELOW

1	2	3	4	5	6	7	8	9
3	4	▨	0		0 0			1
3	4	▨	0		0 0			1
3	4	▨	0		0 0			1
3	4	▨	0		0 0			1
3	4	▨	0		0 0			1

ENTER DELETED ITEMS BELOW

1	2	3	4	5	6	7	8	9
3	4	▨	0		0 0			1
3	4	▨	0		0 0			1
3	4	▨	0		0 0			1
3	4	▨	0		0 0			1
3	4	▨	0		0 0			1

ENTER DELETED ITEMS BELOW

1	2	3	4	5	6	7	8	9
3	4	▨	0		0 0			1
3	4	▨	0		0 0			1
3	4	▨	0		0 0			1
3	4	▨	0		0 0			1
3	4	▨	0		0 0			1

INSTRUCTIONS:

1. Complete Farm and Fieldman I.D. information.
2. Use for setting up schedules for new cooperators plus update and delete for schedules now in the computer.
3. Do not include current year purchases or sales.
4. Use EDP Form printed with record book for purchases or sales.
5. All boxes from columns 1 through 21 (except columns 3) should be filled in.
6. Overwrite number in columns 2, 6, 10, 12, 18, if necessary. Make sure Col. 8 (opr.-lld. no.) is complete.

	COUNTY	FARM	YEAR
FARM I. D.	7 1 0	0 0 0	7 9

FIELDMAN NO. ☐☐☐

FORM 4

NAME Lou Henze

COUNTY Boone

BOUGHT AND TRADE DATA

Transaction: Major	Minor	Tax I.D.	Category	Detail	Enterprise	Item No.	Lid. or Opr.	Type Code	New (1) Used (2)	Bought Mo. Yr.	Initial Yr. 0 - 4	Cash Paid	R. C. of Item Traded	Salvage Value	Investment Credit Taken	I.C. Taken 0, 1, 2, or 3	20% Yes-1 No-2	SL 1 SL 2 DB 3 SD 4	Years Amount Years Years	Description
1	4	▨	0 3	1 2	1 1	9 2	1	5	1	0 1 7 9	4	$ 8000	▨	$ 500	▨	3	1	3	$ 8	8-145
1	4	▨	0		0 0			5		7			▨		▨					
1	4	▨	0		0 0			5		7			▨		▨					
1	4	▨	0		0 0			5		7			▨		▨					
1	4	▨	0		0 0			5		7			▨		▨					
1	4	▨	0		0 0			5		7			▨		▨					
1	4	▨	0		0 0			5		7			▨		▨					
1	4	▨	0		0 0			5		7			▨		▨					
1	4	▨	0		0 0			5		7			▨		▨					
1	4	▨	0		0 0			5		7			▨		▨					

ITEMS ACQUIRED BY TRADE									ITEMS TRADED IN							
Transaction: Major	Minor	Tax I.D.	Category	Detail	Enterprise	Item No.	Lid. or Opr.	Type Code	Transaction: Major	Minor	Tax I.D.	Category	Detail	Enterprise	Item No.	Lid. or Opr.
1	4	▨	0 3	1 2	1 1	9 2	1	6	3	4	▨	0 3	1 2	1 1	9 1	1
1	4	▨	0		0 0			6	3	4	▨	0		0 0		
1	4	▨	0		0 0			6	3	4	▨	0		0 0		
1	4	▨	0		0 0			6	3	4	▨	0		0 0		
1	4	▨	0		0 0			6	3	4	▨	0		0 0		
1	4	▨	0		0 0			6	3	4	▨	0		0 0		
1	4	▨	0		0 0			6	3	4	▨	0		0 0		
1	4	▨	0		0 0			6	3	4	▨	0		0 0		
1	4	▨	0		0 0			6	3	4	▨	0		0 0		

BOUGHT AND TRADE DATA – Enter current year new or used items which are purchased for cash, cash and trade, or trade. If the transaction is a straight cash transaction, use only the upper half of the form. If it is a straight trade or cash and trade, use *both* the upper and lower portions of form.

FOR REFERENCE ONLY DATA – For items such as livestock, house in town, etc., cross out the preprinted minor code in column 2 and enter the number nine (9).

For detailed instructions see AE 4350 "Instructions and Code for ciation Program."

Management
Analysis
Program

FARM I. D. ☐☐☐☐☐☐ 7 ☐

FIELDMAN NO. ☐☐

SALE AND PARTIAL SALE DATA

NAME ____________________

COUNTY ____________________

Transaction													
Major	Minor	Tax I.D.	Category	Detail	Enterprise	Item No.	Lid or Opr.	Type Code	New (1) Used (2)	Sold Mo. Yr.	Present Yr. 0-4	Amount Received	Value of Part Sold
1	2	3	4	5	6	7	8	9	10	11	12	13	
1	3		0					2	1	7	0	$	
1	3		0					2	1	7	0		
1	3		0					2	1	7	0		
1	3		0					2	1	7	0		
1	3		0					2	1	7	0		
1	3		0					2	1	7	0		
1	3		0					2	1	7	0		
1	3		0					2	1	7	0		
1	3		0					2	1	7	0		
1	3		0					2	1	7	0		
1	3		0					2	1	7	0		
1	3		0					2	1	7	0		
1	3		0					2	1	7	0		
1	3		0					2	1	7	0		
1	3		0					2	1	7	0		
1	3		0					2	1	7	0		
1	3		0					2	1	7	0		
1	3		0					2	1	7	0		
1	3		0					2	1	7	0		
ENTER PARTIAL SALES BELOW													
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	3		0					3	1	7	0		$
1	3		0					3	1	7	0		
1	3		0					3	1	7	0		

SALE AND PARTIAL SALE DATA – Enter current year sales and partial sales. Fill in columns 4, 5, 6, 7, and 8 exactly as they are shown on the print-out.

FOR REFERENCE ONLY DATA – For items such as livestock, house in town, etc., cross out the preprinted minor code in column 2 and enter the number nine (9).

For detailed instructions see AE-4350 "Instructions and Code for Depreciation program."

FARM management analysis program

TOTAL FARM BUSINESS ANALYSIS
Input Form 11A Income, Expense, and Financial

County			Farm			Year		Fieldman				Status	
						7	9	5					

2 Drop
3 Add
4 Change

F **m**anagement
analysis
program

Name ____________________

County ____________________

OPERATOR 1

Unpaid Expense						Interest	Fert.	Seed & Crop	Cash Rent Stllmts	Machinery Repairs	Machinery Hire	Gas & Oil	Grain Only
	Ent	Opr	Units	Acc	C T								
Beg	47	1	1	3	1								
End	47	1	1	3	2								

Prepaid Expense							Fert.	Seed & Crop	Misc.	Cash Rent Stllmts	Gas & Oil		
Beg	48	1	1	3	1								
End	48	1	1	3	2								

Accts. Rec.						Custom Work	Cash Rent Stllmts	Misc.					
Beg	52	1	1	1	1								
End	52	1	1	1	2								

LANDLORD 6

Unpaid Expense						Interest	Fert.	Seed & Crop	Cash Rent Stllmts	Machinery Repairs	Machinery Hire	Gas & Oil	Grain Only
Beg	47	6	1	3	1								
End	47	6	1	3	2								

Prepaid Expense							Fert.	Seed & Crop	Misc.	Cash Rent Stllmts	Gas & Oil		
Beg	48	6	1	3	1								
End	48	6	1	3	2								

Accts. Rec.						Custom Work	Cash Rent Stllmts	Misc.					
Beg	52	6	1	1	1								
End	52	6	1	1	2								

County			Farm			Year		Fieldman				Status	
						7	9	0					

2 Drop
3 Add
4 Change

TOTAL FARM BUS

Input Form — 11 — Incor

OPERATOR 1

Income												
Ent.	Opr	Units	Acc	C.T	Custom Work	Federal Gas Tax Refund	State Gas Tax Refund	Patronage Refund	Building Receipts	Cash Rent and Settlements	ASC Diverted	ASC Wool
50	1	1	1	1								
					ASC other	Miscellaneous Receipts & Auto						
50	1	1	1	2	0							
Months of Labor					Hired Labor	Unpaid Opr Labor	Unpaid Family Labor					
55	1	6	1	1								

Expenses					(To allocate expenses to enterprise, enter enterprise numbers below 49 line—use 2nd form if necessary)							
					Interest	Hired Labor	Fertilizer	Seed & Crop	Livestock Exp.	Utilities	Insurance	Miscellaneous
49	1	1	3	1								
	1	1	3	1								
	1	1	3	1								
	1	1	3	1								
	1	1	3	1								
					Taxes	Cash Rent and Settlements	Machinery Repairs	Machinery Hire	Gas & Oil	Auto	Building & Fence	Soil and Water Conservation
49	1	1	3	2								
	1	1	3	2								
	1	1	3	2								
	1	1	3	2								
	1	1	3	2								
Depreciation					Machinery Depr.	Building Depr.						
49	1	1	3	3	0							
	1	1	3	3								
	1	1	3	3								
	1	1	3	3								
	1	1	3	3								

	Personal Assets					Bank Balance and Cash	Stocks and Bonds	Savings Acct	Notes Due Farmer	Insurance Cash Value	Operator Home	Non-Farm Real Estate	Personal Assets
Yr Beg	51	1	1	1	1								
Yr End	51	1	1	1	2								
	Liabilities Non-Farm Items					Liabilities Jan 1	Money Borrowed	Principal Repayments	Liabilities Dec 31	Contribution	Medical	Life Ins Cost	Family Living Expense
	54	1	1	1	1								
						Family Living Capital	Social Security Income Tax	New Savings Investments	Non Farm Income	Non-Farm Expense	Non-Taxable Receipts		
	54	1	1	1	2								

Hand Input Depreciation					Capital Purchases	Rem Cost Year Beg	Depreciation	Rem Cost Year End	Rem Cost Items Sold	Capital Sales	Addl 1st Year Depreciation	
56	1	1	3	1								Machinery
57	1	1	3	1								Building
58	1	1	3	1								Fertility
59	1	1	3	1								Livestock

ESS ANALYSIS
Expense, and Financial

FARM management analysis program

LANDLORD 6 Name ________________ (Please Print)

County ________________

Income												
Ent.	Opr	Units	Acc.	C T	Custom Work	Federal Gas Tax Refund	State Gas Tax Refund	Patronage Refund	Building Receipts	Cash Rent and Settlements	ASC Diverted	ASC Wool
50	6	1	1	1								
					ASC other	Miscellaneous Receipts & Auto						
50	6	1	1	2	0							
Months of Labor					Hired Labor	Unpaid Opr Labor	Unpaid Family Labor					
55	6	6	1	1								

Expenses (To allocate expenses to enterprise, enter enterprise numbers below 49 line—use 2nd form if necessary)

					Interest	Hired Labor	Fertilizer	Seed & Crop	Livestock Exp	Utilities	Insurance	Miscellaneous
49	6	1	3	1								
	6	1	3	1								
	6	1	3	1								
	6	1	3	1								
	6	1	3	1								
					Taxes	Cash Rent and Settlements	Machinery Repairs	Machinery Hire	Gas & Oil	Auto	Building & Fence	Soil and Water Conservation
49	6	1	3	2								
	6	1	3	2								
	6	1	3	2								
	6	1	3	2								
	6	1	3	2								
Depreciation					Machinery Depr.	Building Depr.						
49	6	1	3	3	0							
	6	1	3	3								
	6	1	3	3								
	6	1	3	3								
	6	1	3	3								

	Personal Assets					Bank Balance and Cash	Stocks and Bonds	Savings Acct.	Notes Due Farmer	Insurance Cash Value	Operator Home	Non-Farm Real Estate	Personal Assets
Yr. Beg.	51	6	1	1	1								
Yr. End	51	6	1	1	2								

Liabilities Non-Farm Items					Liabilities Jan 1	Money Borrowed	Principal Repayments	Liabilities Dec 31	Contribution	Medical	Life Ins Cost	Family Living Expense
54	6	1	1	1								
					Family Living Capital	Social Security Income Tax	New Savings Investments	Non-Farm Income	Non-Farm Expense	Non Taxable Receipts		
54	6	1	1	2								
Hand Input Depreciation					Capital Purchases	Rem Cost Year Beg	Depreciation	Rem Cost Year End	Rem Cost Items Sold	Capital Sales	Addl 1st Year Depreciation	
56	6	1	3	1								Machinery
57	6	1	3	1								Building
58	6	1	3	1								Fertility
59	6	1	3	1								Livestock

FARM **Management Analysis Program**

TOTAL FARM BUSINESS ANALYSIS

Input Form — 12 — Livestock Enterprises

County			Farm			Year		Fieldman				Status	
						7	9	0					

2 Drop
3 Add
4 Change

	Ent.		Opr	Units	Acc	C T								
	Hogs			No.				Beginning Inventory	Purchases	Consumed	Death Loss	Sales Market	Sales Capital	Ending Inventory
No.			1	3	1	1	Pig Sold							
Wt.			1	2	1	1	Pig Wt. Sold							
$			1	1	1	1	Pig Val. Sold							
			1	3	1	2	Litters	Pigs Farrowed	Pigs Weaned	Female Months	Purchase cost of Lvskt sold→			
	Dairy Cattle			No.				Beginning Inventory	Purchases	Consumed	Death Loss	Sales Market	Sales Capital	Ending Inventory
No.			1	3	1	1								
Wt.			1	2	1	1								
$			1	1	1	1								
			1	3	1	2	Cows in Herd	Calves Born			Purchase cost of Lvskt sold→			
	Milk Record						Percent Test		Cows Dry	Cows Milked	lbs. Purchases	lbs. Sold	Gallons Consumed	Milk Fed Gallons
Wt.	1	5	1	6	1	1								
$	1	5	1	1	1	1								
	Beef Cattle			No.				Beginning Inventory	Purchases	Consumed	Death Loss	Sales Market	Sales Capital	Ending Inventory
No.			1	3	1	1								
Wt.			1	2	1	1								
$			1	1	1	1								
			1	3	1	2	Cows in Herd	Calves Born			Purchase cost of Lvstk sold→			
	Sheep			No.				Beginning Inventory	Purchases	Consumed	Death Loss	Sales Market	Sales Capital	Ending Inventory
No.			1	3	1	1								
Wt.			1	2	1	1								
$			1	1	1	1								
			1	3	1	2	Ewes Lamb Time	Lambs Born			Purchase cost of Lvstk sold→			
	Poultry			No.				Beginning Inventory	Purchases	Consumed	Death Loss	Sales Market	Sales Capital	Ending Inventory
No.			1	3	1	1								
Wt.			1	2	1	1								
$			1	1	1	1								
			1	3	1	2	Ave. No. Hens	No. Hatched			Purchase cost of Lvskt sold→			
	Egg Record						Eggs Produced	Eggs Purchased	Eggs Consumed	Eggs Sold				
Doz.	1	6	1	8	1	1								
$	1	6	1	1	1	1								
								Beginning Inventory	Purchases	Consumed	Death Loss	Sales Market	Sales Capital	Ending Inventory
No.			1	3	1	1								
Wt.			1	2	1	1								
$			1	1	1	1								
			1	3	1	2					Purchase cost of Lvskt sold→			

terprise Code	HOGS	DAIRY CATTLE	BEEF CATTLE	SHEEP	POULTRY	MISC.
FARROW finish	28	25	20	32	35	39
FEEDER PIG FEEDING	29	26	21	33	36	
FEEDER PIG PROD.	30	27	22	34	37	
MISC. MIXTURE	31		23 24			

Name ______________________ ______________________

County

FEED RECORD

Please Print

HOGS		No.					Units	Pasture Days	Protein Mineral	Corn	Wheat	Oats	Corn Silage	Hay	Card Type	Other Grain	Other Silage	Milk Fed (Gal.)
Units			1	6	2	1									2	cwt 0		
Total $			1	7	2	1									2	0		
DAIRY CATTLE		No.					Units	Pasture Days	Protein Mineral	Corn	Wheat	Oats	Corn Silage	Hay		Other Grain	Other Silage	Milk Fed (Gal.)
Units			1	6	2	1									2	cwt 0		
Total $			1	7	2	1									2	0		
BEEF CATTLE		No.					Units	Pasture Days	Protein Mineral	Corn	Wheat	Oats	Corn Silage	Hay		Other Grain	Other Silage	Milk Fed (Gal.)
Units			1	6	2	1									2	cwt 0		
Total $			1	7	2	1									2	0		
SHEEP		No.					Units	Pasture Days	Protein Mineral	Corn	Wheat	Oats	Corn Silage	Hay		Other Grain	Other Silage	Milk Fed (Gal.)
Units			1	6	2	1									2	cwt 0		
Total $			1	7	2	1									2	0		
POULTRY		No.					Units	Pasture Days	Protein Mineral	Corn	Wheat	Oats	Corn Silage	Hay		Other Grain	Other Silage	Milk Fed (Gal.)
Units			1	6	2	1									2	cwt 0		
Total $			1	7	2	1									2	0		
		No.					Units	Pasture Days	Protein Mineral	Corn	Wheat	Oats	Corn Silage	Hay		Other Grain	Other Silage	Milk Fed (Gal.)
Units			1	6	2	1									2	cwt 0		
Total $			1	7	2	1									2	0		

LANDLORD SHARE OF LIVESTOCK OR LANDLORD LIVESTOCK ENTERPRISE

		No.						Beginning Inventory	Purchases	Consumed	Death Loss	Sales Market	Sales Capital	Ending Inventory
No.			6	3	1	1								
Wt.			6	2	1	1								
$			6	1	1	1								
			6	3	1	2					Purchase cost of Lvstk sold →			
		No.						Beginning Inventory	Purchases	Consumed	Death Loss	Sales Market	Sales Capital	Ending Inventory
No.			6	3	1	1								
Wt.			6	2	1	1								
$			6	1	1	1								
			6	3	1	2					Purchase cost of Lvskt sold →			
		No.						Beginning Inventory	Purchases	Consumed	Death Loss	Sales Market	Sales Capital	Ending Inventory
No.			6	3	1	1								
Wt.			6	2	1	1								
$			6	1	1	1								
			6	3	1	2					Purchase cost of Lvskt sold →			
		Milk					Percent Test		Cows Dry	Cows Milked	lbs. Purchased	lbs. Sold	Gallons Consumed	Milk Fed Gallons
Wt.	1	5	6	6	1	1								
$	1	5	6	1	1	1								
		Eggs					Eggs Produced	Eggs Purchased	Eggs Consumed	Eggs Sold				
Doz.	1	6	6	8	1	1								
$	1	6	6	1	1	1								

County			Farm			Year		Fieldman				Status		
						7	9	5						

2 Drop
3 Add
4 Change

TOTAL FARM BUSIN

Input Form

Crops and Fe

OPERATOR 1

00	0	0	0	0	TENURE ☐ 1-Owned 2-Part-Owner 3-Rented	LEASE ☐ 1-CS-CSC 2-LS 3-Cash 4-Other	☐ "1" if additional ... reports needed	☐☐ Year of Operator's Birth	☐☐ Age of Oldest Dependent Child	☐☐ Number in Family Supported from Farm	☐ "1" if no net worth

On
Multiple
Financi

	Ent.	Opr	Unit	Acc	C.T.	Acres Improved	Acres Improved Value	Acres Owned	Acres Owned Value	Acres Rented	Acres Rented Value	Soil Rating	Tillable Acres
	01	0	6	1	1								
	01	1	6	1	1								
	Corn					Acres	Production	Beginning Inventory	Purchases	Sales	For Seed	Fed	Ending Inventory
ushels	02	1	4	1	1								
$	02	1	1	1	1								
	Soybeans					Acres	Production	Beginning Inventory	Purchases	Sales	For Seed	Fed	Ending Inventory
ushels	03	1	4	1	1								
$	03	1	1	1	1								
	Wheat					Acres	Production	Beginning Inventory	Purchases	Sales	For Seed	Fed	Ending Inventory
shels	04	1	4	1	1								
$	04	1	1	1	1								
	Barley					Acres	Production	Beginning Inventory	Purchases	Sales	For Seed	Fed	Ending Inventory
shels	05	1	4	1	1								
$	05	1	1	1	1								
	Tobacco					Acres	Production	Beginning Inventory	Purchases	Sales	For Seed	Fed	Ending Inventory
Cwt	06	1	6	1	1								
$	06	1	1	1	1								
	Small Grain Silage					Acres	Production	Beginning Inventory	Purchases	Sales	For Seed	Fed	Ending Inventory
Tons	07	1	5	1	1								
$	07	1	1	1	1								
	Corn & Milo Silage					Acres	Production	Beginning Inventory	Purchases	Sales	For Seed	Fed	Ending Inventory
Tons	08	1	5	1	1								
$	08	1	1	1	1								
	Alfalfa					Acres	Production	Beginning Inventory	Purchases	Sales	For Seed	Fed	Ending Inventory
ons	09	1	5	1	1								
$	09	1	1	1	1								
	Legume-Grasses					Acres	Production	Beginning Inventory	Purchases	Sales	For Seed	Fed	Ending Inventory
ons	10	1	5	1	1								
$	10	1	1	1	1								
	Misc. Crops					Acres	Production	Beginning Inventory	Purchases	Sales	For Seed	Fed	Ending Inventory
xed	11	1	6	1	1								
$	11	1	1	1	1								
	Protein							Beginning Inventory	Purchases	Sales		Fed	Ending Inventory
nds	12	1	2	1	1								
$	12	1	1	1	1								

Y
SS ANALYSIS
10
Data

FARM management analysis program

Name ____________________
Please Print

County ____________________

LANDLORD 6

For
perator's
Reports

	Est.	Opr	Unit	Acc	C.T.	Acres Improved	Acres Improved Value	Acres Owned	Acres Owned Value	Acres Rented	Acres Rented Value	Soil Rating	Tillable Acres
	01	6	6	1	1								
Corn						Acres	Production	Beginning Inventory	Purchases	Sales	For Seed	Fed	Ending Inventory
Bushels	02	6	4	1	1								
$	02	6	1	1	1								
Soybeans						Acres	Production	Beginning Inventory	Purchases	Sales	For Seed	Fed	Ending Inventory
Bushels	03	6	4	1	1								
$	03	6	1	1	1								
Wheat						Acres	Production	Beginning Inventory	Purchases	Sales	For Seed	Fed	Ending Inventory
Bushels	04	6	4	1	1								
$	04	6	1	1	1								
Barley						Acres	Production	Beginning Inventory	Purchases	Sales	For Seed	Fed	Ending Inventory
Bushels	05	6	4	1	1								
$	05	6	1	1	1								
Tobacco						Acres	Production	Beginning Inventory	Purchases	Sales	For Seed	Fed	Ending Inventory
Cwt	06	6	6	1	1								
$	06	6	1	1	1								
Small Grain Silage						Acres	Production	Beginning Inventory	Purchases	Sales	For Seed	Fed	Ending Inventory
Tons	07	6	5	1	1								
$	07	6	1	1	1								
Corn & Milo Silage						Acres	Production	Beginning Inventory	Purchases	Sales	For Seed	Fed	Ending Inventory
Tons	08	6	5	1	1								
$	08	6	1	1	1								
Alfalfa						Acres	Production	Beginning Inventory	Purchases	Sales	For Seed	Fed	Ending Inventory
Tons	09	6	5	1	1								
$	09	6	1	1	1								
Legume-Grasses						Acres	Production	Beginning Inventory	Purchases	Sales	For Seed	Fed	Ending Inventory
Tons	10	6	5	1	1								
$	10	6	1	1	1								
Misc. Crops						Acres	Production	Beginning Inventory	Purchases	Sales	For Seed	Fed	Ending Inventory
Mixed	11	6	6	1	1								
$	11	6	1	1	1								
Protein								Beginning Inventory	Purchases	Sales		Fed	Ending Inventory
ounds	12	6	2	1	1								
$	12	6	1	1	1								

322

Enterprise Code	HOGS	DAIRY CATTLE	BEEF CATTLE	SHEEP	POULTRY	MISC.
FARROW finish	28	25	20	32	35	38
FEEDER PIG FEEDING	29	26	21	33	36	
FEEDER PIG PROD.	30	27	22	34	37	
MISC. MIXTURE	31		23			
			24			

Name

County

FEED RECORD

Please Print

HOGS			No.				Units	Pasture Days	Protein Mineral	Corn	Wheat	Oats	Corn Silage	Hay	Card Type	Other Grain	Other Silage	Milk Fed (Gal.)
Units			1	6	2	1									2	CWT 0		
Total $			1	7	2	1									2	0		

DAIRY CATTLE			No.				Units	Pasture Days	Protein Mineral	Corn	Wheat	Oats	Corn Silage	Hay		Other Grain	Other Silage	Milk Fed (Gal.)
Units			1	6	2	1									2	CWT 0		
Total $			1	7	2	1									2	0		

BEEF CATTLE			No				Units	Pasture Days	Protein Mineral	Corn	Wheat	Oats	Corn Silage	Hay		Other Grain	Other Silage	Milk Fed (Gal.)
Units			1	6	2	1									2	CWT 0		
Total $			1	7	2	1									2	0		

SHEEP			No				Units	Pasture Days	Protein Mineral	Corn	Wheat	Oats	Corn Silage	Hay		Other Grain	Other Silage	Milk Fed (Gal.)
Units			1	6	2	1									2	CWT 0		
Total $			1	7	2	1									2	0		

POULTRY			No				Units	Pasture Days	Protein Mineral	Corn	Wheat	Oats	Corn Silage	Hay		Other Grain	Other Silage	Milk Fed (Gal.)
Units			1	6	2	1									2	CWT 0		
Total $			1	7	2	1									2	0		

			No				Units	Pasture Days	Protein Mineral	Corn	Wheat	Oats	Corn Silage	Hay		Other Grain	Other Silage	Milk Fed (Gal.)
Units			1	6	2	1									2	CWT 0		
Total $			1	7	2	1									2	0		

LANDLORD SHARE OF LIVESTOCK OR LANDLORD LIVESTOCK ENTERPRISE

			No					Beginning Inventory	Purchases	Consumed	Death Loss	Sales Market	Sales Capital	Ending Inventory
No			6	3	1	1								
Wt			6	2	1	1								
$			6	1	1	1								
			6	3	1	2					Purchase cost of Lvstk sold →			

			No					Beginning Inventory	Purchases	Consumed	Death Loss	Sales Market	Sales Capital	Ending Inventory
No			6	3	1	1								
Wt			6	2	1	1								
$			6	1	1	1								
			6	3	1	2					Purchase cost of Lvskt sold →			

			No					Beginning Inventory	Purchases	Consumed	Death Loss	Sales Market	Sales Capital	Ending Inventory
No			6	3	1	1								
Wt			6	2	1	1								
$			6	1	1	1								
			6	3	1	2					Purchase cost of Lvskt sold →			

			Milk				Percent Test		Cows Dry	Cows Milked	lbs Purchased	lbs Sold	Gallons Consumed	Milk Fed Gallons
Wt	1	5	6	6	1	1								
$	1	5	6	1	1	1								

			Eggs				Eggs Produced	Eggs Purchased	Eggs Consumed	Eggs Sold				
Doz	1	6	6	8	1	1								
$	1	6	6	1	1	1								

ATTACHMENT VI

The following forms are preliminary drafts only.

Management
Analysis
Program

CASH FLOW

SOURCES OF DOLLARS	SUB TOTAL	CASH FLOW FARM PORTION	CASH FLOW ALL FUNDS
BANK BAL - BEGINNING OF PERIOD			11455-
NON - TAXABLE RECEIPTS			
NON - FARM INCOME			
MONEY BORROWED THIS YEAR			[illegible]
CROP SALES		255982	
OTHER CASH INCOME		9303	
SALE OF CAPITAL ITEMS			
LVSTK AND LVSTK PRODUCTS		149135	
TOTAL SOURCES OF DOLLARS		414420	[illegible]
PRINCIPAL PAYMENTS			[illegible]
INTEREST	29535		
HIRED LABOR	12849		
FERTILIZER	46766		
SEED AND CROP	45492		
LVSTK EXPENSE	9150		
UTILITIES	4053		
INSURANCE	1083		
MISCELLANEOUS	1341		
TAXES			
CASH RENT	69327		
MACHINERY REPAIR	10442		
MACHINERY HIRE	1544		
GAS AND OIL	10262		
AUTO - FARM SHARE	63		
BLDG AND FENCE	12734		
TOTAL CASH EXPENSE		254661	
CAPITAL PURCHASES		32602	
PURCHASES OF FEED		112325	
PURCHASES OF LIVESTOCK		1200	
CONTRIBUTIONS			
MEDICAL EXPENSES			
LIFE INSURANCE PREMIUMS			
INCOME, SELF - EMPLOYMENT TAX			
NEW SAVING AND INVESTMENTS			
FAMILY LIVING - CAPITAL			
FAMILY LIVING - EXPENDABLE			[illegible]
NON - FARM BUSINESS EXPENSES			[illegible]
BANK BALANCE - END OF PERIOD			[illegible]
TOTAL DOLLARS ACCOUNTED FOR		400788	[illegible]

PROFIT AND LOSS SUMMARY

SALES BY CHILDREN/OTHERS EXCLUDED

FARM CASH BALANCE	13632	
INVENTORY CHANGE	120551	
CAPITAL CHANGE	18465	
FARM PRODUCTS CONSUMED		
CHANGE IN ACCT. REC. ACCT. PAY. PREPAID	12000	
FARM AND FAMILY EARNINGS (ACCRUAL)	173648	
MEMO - NET DEPRECIATION		14137

ANAGEMENT ASSOCIATION

Y0B30 AUC2U FAMU4

County V3[illegible]
Farm 4[illegible]
Fieldman B[illegible]

NET WORTH

ETS	BEGINNING OF YEAR	END OF YEAR
ASH ON HAND BANK	11455	65676
CASH IN SAVINGS		
STOCKS AND BONDS		
ACCOUNTS RECEIVABLE		
NOTES DUE ME		
CASH VALUE OF LIFE INSURANCE		
OPERATORS OWNED RESIDENCE		
OTHER NON - FARM REAL ESTATE		
HOME FURNISHINGS, PERSONAL ITEMS, FAMILY SHARE - AUTO	[illegible]	[illegible]
TAL NON - FARM ASSETS	[illegible]	[illegible]
ROP, FEED, AND LIVESTOCK	[illegible]	[illegible]
ACHINERY AND FARM SHARE OF AUTO - BOOK VALUE -	[illegible]	[illegible]
IVESTMENT IN CROP	[illegible]	[illegible]
TAL NON- REAL ESTATE FARM ASSETS	[illegible]	[illegible]
ARE LAND VALUE - ACRES AT $/ACRE *		
ILDINGS - BOOK VALUE -	[illegible]	[illegible]
AL FARM REAL ESTATE ASSETS	[illegible]	[illegible]
AL ASSETS - BOOK VALUE-	300931	440727
BILITIES		
EAL ESTATE MORTGAGES OWED BY ME - CURRENT - DUE NEXT YEAR		
- DEFERRED - DUE AFTER NEXT YEAR		
IOTES - PCA, BANKS, LENDING AGENCIES - CURRENT - DUE NEXT YEAR		
- DEFERRED - DUE AFTER NEXT YEAR		
CCOUNTS WITH MERCHANTS, DEALERS, ETC.		
ERSONAL OR UNSECURED NOTES - CURRENT - DUE NEXT YEAR		
- DEFERRED - DUE AFTER NEXT YEAR		
TAL LIABILITIES	[illegible]	[illegible]
T WORTH	31[illegible]	[illegible]
HANGE IN NET WORTH		[illegible]
AGE M - 1 LAND VALUES ADJUSTED BY CURRENT LAND INDEX 2.44		

BREAKDOWN OF INVENTORY
CROP, FEED, AND LIVESTOCK INV. VALUES

FEED, GRAINS, SEEDS	13[illegible]	310363
HOGS	6[illegible]	[illegible]
DAIRY CATTLE		
BEEF CATTLE		
SHEEP		
POULTRY		
MISCELLANEOUS LIVESTOCK		
TAL	420481	368848
MEMO - CASH BASIS 1040 F NET FARM PROFIT	16111	

FARM [illegible]

INCOME AND EXPENSES	OPERATOR	LANDLORD	TOTAL	AV FARM OPR SHR
CASH INCOME:				
CROPS, DIV ACRE PAYMENTS	255982	218540		
LIVESTOCK, LVSTK PRODUCTS	149135			
SALES, CAPITAL ITEMS	17675			
OTHER CASH INCOME	9303	143751		
TOTAL CASH INCOME	432095	362291	794386	
CASH EXPENDITURES:				
PURCHASED FEED	112325			
PURCHASED LIVESTOCK	1200			
SUB-TOTAL	113525		113525	
CASH OPERATING EXPENSES				
INTEREST	29535	297		15453
HIRED LABOR	12849	68		
FERTILIZER	46766	200		
SEED AND CROP	45492	3050		
LIVESTOCK	9150	476		
MACHINERY	26384	2684		
INSURANCE	1083	1917		
TAXES		19101		
BUILDING AND FENCE	12734	1102		
MISCELLANEOUS	1341	501		
CASH RENT AND SETTLEMENTS	69327	69327		
SUB-TOTAL	254661	98723	353384	
CAPITAL PURCHASES				
MACHINERY	109711			
BUILDINGS	32602			
SOIL FERTILITY				
SUB-TOTAL	142313		142313	
* * ADJ FOR ACCURED ITEMS	12000		12000	
TOTAL CASH EXPENDITURE	510499	98723	609222	
CASH BALANCE	78404-	263568	185164	39504
INVENTORY CHANGE * *	141551		141551	21070
CAPITAL CHANGE	80665	5478-	75187	24160
FARM PRODUCTS CONSUMED				503
FARM AND FAMILY EARNINGS	143812	258090	401902	85237
INTEREST ON EQUITY CAPITAL	6069	123230	129299	35608
UNPAID FAMILY LABOR	11625		11625	3447
OPER LABOR AND MGT EARNINGS	126118	134860	260978	46182
UNPAID OPERATOR LABOR	9300		9300	8953
MANAGEMENT RETURNS	116818	134860	251678	37229

JUNE 13 1977 ACRES DOUBLE CROPPED= 50

CROP PRODUCTION ANALYSIS

LAND USE AND CROP PRODUCTION	CROP YIELDS My Form	CROP YIELDS Av. Farm	LAND USE % My Form	LAND USE % Av. Farm		GRAIN PRI Received Oper.	Av.	O
CORN	164	138	45,3	63,1		3.04	2.60	2,
SOYBEANS	51	43	47,7	30,5		7.44	5.69	6,
WHEAT	87	46	4,2	2,9		4.00	2.99	
OATS	22	72	,6	,4			1.62	1,
DIVERTED ACRES					LAND INFORMATION			
CORN SILAGE		16		,6	TOTAL ACRES			14
HAY AND PASTURE			2,2	2,1	TILLABLE ACRES			14
OTHER			3,5	1,7	SOIL RATING			

9	Type: GRAIN	Acres 950+			Farm 120
	Soil Rating 86-100		1-20		Fieldman 86
		13	8		

RETURNS AND COSTS		TOTAL FARM	PER TILLABLE ACRE MY FARM	AV FARM	DIFF
FARM RETURNS					
FEED AND GRAIN RETURNS		577110	400,49	322,83	77,66
LIVESTOCK RETURNS ABOVE FEED		62573	43,42	1,50-	44,92
CUSTOM WORK		398	,28	1,78	1,50-
OTHER CASH INCOME		14002	9,72	[illegible]	6,77
VALUE OF FARM PRODUCTION		654083	453,91	326,06	127,85
FARM COSTS					
SOIL FERTILITY					
ANNUAL COSTS	44466				
DEPRECIATION					
SOIL FERTILITY TOTAL		44466	30,86	34,87	4,01-
BUILDINGS					
REPAIRS	13836		9,60	[illegible]	[illegible]
DEPRECIATION	13295		9,23	[illegible]	[illegible]
BUILDING TOTAL		27131	18,83	[illegible]	9,98
MACHINERY					
UTILITIES	4053		2,81	[illegible]	,38
REPAIRS	11646		8,08	10,10	2,02-
HIRE	1554		1,08	1,55	,47-
GAS AND OIL	10706		7,43	7,77	,34-
AUTO	1109		,77	,60	,17
DEPRECIATION	36156		25,09	21,[illegible]	[illegible]
MACHINERY TOTAL		65224	45,26	[illegible]	1,20
LABOR					
[illegible]	20925		14,52	11,25	3,27
[illegible]	12917		8,96	14,22	5,26-
LABOR TOTAL		33842	23,49	25,[illegible]	[illegible]
SEED AND CROP EXPENSE		39042	27,09	[illegible]	[illegible]
LIVESTOCK EXPENSE		9626	6,68	[illegible]	[illegible]
INSURANCE		3000	2,08	[illegible]	[illegible]
TAXES		19101	13,26	[illegible]	[illegible]
MISCELLANEOUS EXPENSE		1842	1,28	[illegible]	[illegible]
INTEREST CHARGE ON CAPITAL		159131	110,43	115,[illegible]	[illegible]
TOTAL NON-FEED COSTS		402405	279,25	273,[illegible]	5,91
VALUE OF FEED FED		74999	52,05	[illegible]	[illegible]
MANAGEMENT RETURNS		251678	174,66	52,[illegible]	[illegible]
PROD PER $1 NON-FEED COSTS		1,63		1,[illegible]	
FARM PRODUCTION PER MAN		182535		127[illegible]	
CWT PORK PRODUCED			3532		828

LABOR	MONTHS	AV MONTHS
PAID	16,0	17,8
UNPAID	27,0	16,0
TOTAL	43,0	33,8

INCOME AND EXPENSES	MY FARM DOLLARS	MY FARM %	AV %
CASH OPERATING EXPENSES	202730	30,9	40,9
NET DEPRECIATION	49451	7,6	8,3
FARM AND FAMILY EARNINGS	401902	61,4	50,7
VALUE OF PRODUCTION	654083	100,0	100,0

S Paid AV	INVESTMENT	OPERATOR Beg. - Yr	OPERATOR End - Yr.	LANDLORD Beg. - Yr.	LANDLORD End - Yr.
	FEED AND GRAINS	175471	319305		
2,88	LIVESTOCK	63820	53457		
6,44	MACHINERY	130540	189508	6881	3721
3,00	BUILDINGS	75218	96809	33986	31638
1,84	SOIL FERTILITY				
AV	VALUE OF LAND (CURRENT)			2405195	2405195
1222	TOTAL CAPITAL INVESTMENT	445053	655269	2446062	2440554
1101	RATE EARNED ON LANDLORD INVESTMENT	MY FARM	10,56	AV. FARM	6,56
93	RATE EARNED ON TOTAL FARM INVESTMENT	MY FARM	14,21	AV. FARM	7,12

SCHEDULE F
(Form 1040)
Department of the Treasury
Internal Revenue Service

Farm Income and Expenses

(Compute social security self-employment tax on Schedule SE)
▶ Attach to Form 1040.
▶ If rental income, see Instruction C before using this schedule.

1976

Name(s) as shown on Form 1040 SAMPLE FARM - 1977

Social security number

Business name and address

Location of farm(s) and number of acres in each farm

Employer identification number (See instructions)

Part I Farm Income—Cash Receipts and Disbursements Method

Do not include sales of livestock held for draft, breeding, sport, or dairy purposes; report such sales on Form 4797.

Sales of Purchased Livestock and Other Items Purchased for Resale

a. Description	b. Amount received	c. Cost or other basis
1 Livestock:	$	$
2 Other items:		
3 Totals	$	$
4 Profit or (loss), subtract line 3, column c from line 3 column b ▶		$

Sales of Market Livestock and Produce Raised and Held Primarily for Sale and Other Farm, Income

Kind	Quantity	Amount
5 Cattle		
6 Calves		
7 Sheep		
8 Swine		129949
9 Poultry		
10 Dairy products		
11 Eggs		
12 Wool		
13 Cotton		
14 Tobacco		
15 Vegetables		
16 Grain		255982
17 Fruits and nuts		
18 Other (specify):		

OTHER FARM INCOME

19 Machine work Custom Work		398
20 (a) Patronage dividends (See instructions)		920
(b) Per-unit retains (See instructions)		
21 Nonpatronage distributions from exempt cooperatives		
22 Agricultural program payments:		
(1) Cash		
(2) Materials and services		
23 Commodity Credit loans under election (or forfeited)		
24 Federal gasoline tax credit		
25 State gasoline tax refund		
26 Other (specify): Lid Reimb	7537	7985
Other	448	
27 Add lines 5 through 26		$ 395234
28 Gross profit *(add lines 4 and 27) ▶		$ 395234

Part II Farm Deductions—For Cash and Accrual Method Taxpayers

F

Do not include personal or living expenses not attributable to production of farm income, such as taxes, insurance, repairs, etc., on your dwelling.

Item	Amount
29 Labor hired	$ 12849
30 Repairs, maintenance	10442
31 Interest	29535
32 Rent of farm, pasture	69327
33 Feed purchased	112425
34 Seed, plants purchased	45492
35 Fertilizers, lime	46766
36 Machine hire	1544
37 Supplies purchased	
38 Breeding fees	
39 Veterinary, medicine	
40 Gasoline, fuel, oil	10282
41 Storage, warehousing	
42 Taxes	
43 Insurance	1083
44 Utilities	4053
45 Freight, trucking	
46 Conservation expenses	
47 Land clearing expenses	
48 Pension and profit-sharing plans (see instructions)	
49 Employee benefit programs other than line 48 (see instructions)	
50 Other (specify):	
Livestock expense	9150
Auto expense (farm)	63
Bldg. and Fence repairs	12734
Miscellaneous (including bank charges, farm papers, organization dues, etc.)	1381
51 Add lines 29 through 50 ▶	$ 366986
52 Depreciation (from line 59, Part III) ▶	14137
53 Total deductions. Add lines 51 and 52 ▶	$ 381123

54 Net farm profit or (loss) (subtract line 53 from 28). Enter here and on Form 1040, line 33. ALSO enter on Schedule SE, Part I, line 1(a) ▶	$ 14111

* Use amount on line 28 for optional method of computing net earnings from self-employment. (See Schedule SE, Part I, line 3.)

Schedule F (Form 1040) Page 2

Part III Depreciation (Do not include property you and your family occupy as a dwelling, its furnishings, and other items used for personal purposes.) If you need more space, you may use Form 4562.

Note: If depreciation is computed by using the Class Life (ADR) System for assets placed in service after December 31, 1970, or the Guideline Class Life System for assets placed in service before January 1, 1971, you must file Form 4832 (Class Life (ADR) System) or Form 5006 (Guideline Class Life System). Except as otherwise expressly provided in income tax regulations sections 1.167(a)-11(b)(5)(iv) and 1.167(a)-12, the provisions of Revenue Procedures 62-21 and 65-13 are not applicable for taxable years ending after December 31, 1970.

If you elected the Class Life (ADR) System this taxable year, check this box ☐

If you elected the Guideline Class Life System this taxable year, check this box ☐

a. Group and guideline class or description of property	b. Date acquired	c. Cost or other basis	d. Depreciation allowed or allowable in prior years	e. Method of computing depreciation	f. Life or rate	g. Depreciation for this year
55 Total additional first-year depreciation (do not include in items below)						2000
56 Depreciation from Form 4832 (See Note above)						
57 Depreciation from Form 5006 (See Note above)						
58 Other depreciation:						
Buildings						8977
Furniture and fixtures						
Transportation equipment						
Machinery and other equipment						3160
Other (specify): Livestock						
59 Totals			Enter here and in Part II, line 52 ▶			14137

Part IV Farm Income—Accrual Method

Do not include sales of livestock held for draft, breeding, sport, or dairy purposes; report such sales on Form 4797 and omit them from "On hand at beginning of year" column.

Description (Kind of livestock, crops, or other products)	On hand at beginning of year		Purchased during year		Raised during year	Consumed or lost during year	Sold during year		On hand at end of year	
	Quantity	Inventory value	Quantity	Amount paid	Quantity	Quantity	Quantity	Amount received	Quantity	Inventory value
Grain		$175471		$112325				$255982		$315385
Hogs		63820		1200				129949		53457
Cattle										
Sheep										
Other										
Totals		239291		113525				385931		368842
To Form 4797										
60 Totals (enter here and in Part V below)		$ (Enter on line 70)		$ (Enter on line 71)				$ (Enter on line 62)		$ (Enter on line 61)

Part V Summary of Income and Deductions—Accrual Method

61 Inventory of livestock, crops, and products at end of year		$
62 Sales of livestock, crops, and products during year		
63 Agricultural program payments: (1) Cash		
(2) Materials and services		
64 Commodity Credit loans under election (or forfeited)		
65 Federal gasoline tax credit		
66 State gasoline tax refund		
67 Other farm income (specify): Patronage Refund 920 Lid Reimb 7537 Custom Work 398 Other 448	9303	
68 Add lines 62 through 67		
69 Total (add lines 61 and 68)		$
70 Inventory of livestock, crops, and products at beginning of year	$	
71 Cost of livestock and products purchased during year		
72 Gross profit *(subtract the sum of lines 70 and 71 from line 69)		$
73 Total deductions from line 53, Part II, page 1		$ 381123
74 Net farm profit or (loss) (subtract line 73 from line 72). Enter here and on Form 1040, line 33. ALSO enter on Schedule SE, Part I, line 1(a)		$

* Use amount on line 72 for optional method of computing net earnings from self-employment. (See Schedule SE, Part I, line 3.)

management
analysis
program

LIVESTOCK ANALYSIS
FARM BUSINESS FARM MANAGEMENT ASSOCIATION

FEEDER CATTLE ENTERPRISE	MY FARM	AV. FARM	PURCHASE WEIGHT 0-500	500-750
NUMBER OF FARMS		[illegible]	198	[illegible]
TOTAL POUNDS PRODUCED		122[illegible]	83659	[illegible]
TOTAL RETURNS		[illegible]	31617	[illegible]
VALUE OF FEED FED		[illegible]	[illegible]	[illegible]
RETURNS PER $100 FEED FED		[illegible]	98	[illegible]
AVERAGE WEIGHT PURCHASED		[illegible]	458	[illegible]
PRICE PAID PER 100 LBS		37.[illegible]	36.12	[illegible]
AVERAGE WEIGHT SOLD		[illegible]	903	[illegible]
PRICE RECEIVED PER 100 POUNDS		37.44	36.74	[illegible]
FEED COST PER 100 POUNDS PRODUCED		[illegible]	38.50	[illegible]
DEATH LOSS—% OF POUNDS PRODUCED		[illegible]	3.8	[illegible]
POUNDS FEED PER 100 LBS PRODUCED:				
GRAIN		[illegible]	459	[illegible]
PROTEIN AND MINERALS		[illegible]	55	[illegible]
TOTAL CONCENTRATES		[illegible]	514	[illegible]
HAY AND DRY ROUGHAGE		[illegible]	40	[illegible]
ALL SILAGE		[illegible]	1018	[illegible]

DAIRY CATTLE ENTERPRISE	MY FARM	PASTURE DAYS / ANIMAL UNIT ALL	0	12[illegible]
NUMBER OF FARMS		[illegible]	183	[illegible]
NUMBER OF COWS IN HERD		[illegible]	87.5	[illegible]
NUMBER OF MILK COWS		[illegible]	[illegible]	[illegible]
PERCENT OF MILK COWS DRY		[illegible]	[illegible]	[illegible]
ANIMAL UNITS IN HERD		[illegible]	[illegible]	72
POUNDS OF BEEF PRODUCED		[illegible]	[illegible]	[illegible]
TOTAL RETURNS		[illegible]	[illegible]	[illegible]
VALUE OF FEED FED		[illegible]	[illegible]	[illegible]
RETURNS PER $100 FEED FED		[illegible]	[illegible]	[illegible]
RETURNS ABOVE FEED PER MILK COW		[illegible]	[illegible]	[illegible]
TOTAL CWT OF MILK PRODUCED		[illegible]	[illegible]	[illegible]
POUNDS OF MILK PER MILK COW		[illegible]	[illegible]	[illegible]
POUNDS OF BUTTERFAT PER MILK COW		[illegible]	[illegible]	[illegible]
POUNDS OF BEEF PER COW IN HERD		[illegible]	417	[illegible]
DEATH LOSS:				
POUNDS		[illegible]	3332	[illegible]
PERCENT OF POUNDS PRODUCED		[illegible]	[illegible]	[illegible]
FEED COST / UNIT-1000 LBS. MILK OR 100 LBS. BEEF		[illegible]	43.50	[illegible]
PRICE RECEIVED FOR				
100 LB MILK		[illegible]	9.12	[illegible]
100 LB BEEF		[illegible]	30.67	[illegible]
LBS OF FEED / UNITS OF MILK OR BEEF:				
GRAIN		[illegible]	380	[illegible]
PROTEIN AND MINERALS		[illegible]	87	[illegible]
TOTAL CONCENTRATES		[illegible]	[illegible]	[illegible]
HAY AND DRY ROUGHAGE		[illegible]	249	[illegible]
[illegible] SILAGE		[illegible]	962	[illegible]
[illegible] SILAGE		[illegible]	815	[illegible]
PASTURE DAYS		2		[illegible]
PASTURE DAYS PER ANIMAL UNIT		[illegible]		[illegible]

Name: **SAMPLE FARM**

County: 038
Farm: 152
Fieldman: 88

FEEDER PIG ENTERPRISE	MY FARM	AV FARM	
NUMBER OF FARMS		127	
TOTAL POUNDS PRODUCED		111631	
TOTAL RETURNS		30058	
VALUE OF FEED FED		25294	
RETURNS PER $100 FEED FED		118	
AVERAGE WEIGHT PURCHASED		49	
PRICE PAID PER 100 LBS		81,84	
AVERAGE WEIGHT SOLD		226	
PRICE RECEIVED PER 100 POUNDS		43,33	
FEED COST PER 100 POUNDS PRODUCED		22,66	
DEATH LOSS-% OF POUNDS PRODUCED		2,0	
POUNDS FEED PER 100 LBS PRODUCED			
GRAIN		311	
PROTEIN AND MINERALS		72	
TOTAL CONCENTRATES		383	
COST PER 100 LBS. OF COMMERCIAL FEEDS		11,76	
COST PER 100 LBS. OF CONCENTRATES		5,89	

MISC. LIVESTOCK ENTERPRISE	MY FARM	
TOTAL POUNDS PRODUCED		
TOTAL RETURNS		
VALUE OF FEED FED		
RETURNS PER $100 FEED FED		

PRICES USED ON FEED RECORDS	
PASTURE DAY	,25
CORN	2,55
WHEAT	3,02
OATS	1,45
MILK	,81

GENERAL INFORMATION	MY FARM	
AVERAGE NUMBER OF MILK COWS		
AVERAGE NUMBER OF HENS		
POUNDS OF BEEF PRODUCED		
POUNDS OF PORK PRODUCED	353198	

NAME
ADDRESS

[illegible] 038
[illegible] 243

[illegible] 88

EXPLANATION OF COLUMN HEADINGS

COLUMNS 4-5. Identification number assigned to categories and detail groups of depreciable items.

COLUMN 6. Enterprise allocation of depreciable items.

COLUMN 7. Number assigned to identify more than one item within a detail group classification.

COLUMN 10. * Indicates whether an item was new (1) or used (2) when purchased.

COLUMN 12. [illegible] of depreciation taken in year of purchase, [illegible] year of depreciation [illegible]

COLUMN 13. The cost or other basis, including cash paid plus remaining cost of items traded.

COLUMN 14. The undepreciated balance of initial basis, reduced by any depreciation claimed during year of trade.

COLUMN 15. The estimated salvage value that is in excess of 10 percent of initial basis for capital items other than livestock, purchased after October 16, 1962.

COLUMN 16. The dollar amount of investment credit taken in year of purchase.

COLUMN 17. The rate of investment credit, recorded as (0), (1), (2) or (3) thirds of 7 percent.

COLUMN 18. The election of additional first year depreciation (20 percent) indicated by (1) yes or (2) no.

COLUMN 19. Depreciation method: (1) straight line, calculated by depreciable balance divided by years; (2) straight line, calculated by deducting a fixed depreciation from remaining cost, (3) declining balance, and (4) sum of the years-digits.

COLUMN 20. Years of useful life, except for depreciation method (2) where dollar amount recorded is the rounded sum of straight line depreciation.

COLUMN 21. The undepreciated balance of initial basis on January 1.

DESCRIPTION		4	5	6	7	10	BOUGHT MO. 11	YR.	12	
COMBINE	JD	03	02		75	1	09	75	4	29062
PLANTER	IHC	03	04	06	30	1	12	73	0	6000
PLANTER	2UNITS	03	04	06	75	1	03	75	4	1129
CULTIV.-ROW	18-ROW	03	05	06	75	1	03	75	4	4315
DISC		03	06	11	02	1	04	69	4	1838
FIELD CULTIV.	24FT	03	07	11	40	1	03	74	4	3145
TRADED	**									
FIELD CULTIV.	WILRCH	03	07	06	75	1	04	75	4	5659
BOUGHT	*									
FIELD CULTIV.		03	07	06	76	1	07	76	3	4821
TRADE-IN		TRADED								FIELD CU
HARROW		03	09	11	02	1	07	67	2	336
HARROW	ROLLER	03	09	11	40	1	11	74	1	2499
HARROW	DSCLF	03	09	11	72	1	04	72	3	308
MOWER, FIELD		03	11		02	2	07	68	2	225
BOUGHT	*									
PLOW	DMI 4B	03	12	06	26	1	12	76	1	3570
PLOW	DMI	03	12	11	41	1	03	74	4	2546
PLOW	DM8-16	03	12	06	73	1	08	75	2	5213
PLOW	SNOW	03	12		75	1	12	75	1	1063
BOUGHT	*									
PLOW	DM18BT	03	12	06	76	1	11	76	1	7462
ROTARY HOE	814	03	13	06	30	1	04	74	4	1372
TRACTOR	WD	03	14		02	2	01	65	0	710
TRACTOR	3020-	03	14		07	1	02	69	4	5126
TRACTOR	4430	03	14		30	1	03	74	4	10500
SOLD	***	AMOUNT-RECD								5775
TRACTOR	4010	03	14		72	2	02	72	0	3500
TRACTOR	8630JD	03	14	06	74	1	07	75	2	44500
TRACTOR	4230JD	03	14	06	75	1	04	75	4	21400
BOUGHT	*									
TRACTOR	JD4020	03	14		76	2	12	76	1	9345
TRUCK		03	15		01	2	01	65	0	634
BOUGHT	*									
TRUCK	DIESEL	03	15		26	2	12	76	1	30000
SOLD	***	AMOUNT-RECD								3800
TRUCK	74 GMC	03	15		31	1	12	73	0	4914
TRUCK	GMC 2T	03	15		32	1	12	73	0	6062
TRUCK	74CHEV	03	15		40	1	08	74	2	6106
TRUCK	HITCH	03	15		74	1	02	74	4	136
TRUCK	SEAT	03	15		75	1	06	75	2	236
BOUGHT	*									
TRUCK	PKUP4W	03	15		76	1	07	76	2	7376
WAGON, GRAIN	BUGGY	03	16	06	75	1	08	75	2	2715
BOUGHT	*									
WAGON, GRAIN	RUNING	03	16		76	1	04	76	3	735
AUGER	RED	03	18		01	1	01	64	0	662
AUGER	BELT	03	18		05	1	09	70	2	1103
BOUGHT	*									
AUGER	28PRDR	03	18	06	75	1	07	76	2	421

DEPRECIATION YEAR
OPERATOR NO

FARM [illegible]

REMAINING COST OF ITEMS TRADED 14	SALVAGE VALUE 15	INVESTMENT CREDIT TAKEN 16	17	18	19	AMOUNT YEARS 20	REMAINING COST BEGINNING OF YEAR 21	DEPRECIATION 22	REMAINING COST END OF YEAR 23
5954		2906	3	1	3	7YR	17457	4987	12470
		420	3	2	3	7YR	3061	875	2186
		113	3	2	3	7YR	806	230	576
		432	3	1	3	7YR	2466	705	1761
		129	3	1	1*	2YR	196	196	
		220	3	1	1*	5YR	1284	321	963
		566	3	1	3	7YR	3234	231	TRADED
3003		482	3	2	3	7YR		1033	3788
LTIV.			03	07	75	TENT. RECAP.		566	
		16	2	1	1*	2YR	9	9	
		175	3	1	3	7YR	1326	379	947
		22	3	1	1*	3YR	71	36	35
		16	3	1	1	8YR	9	9	
						20-PER-CENT		714	
		357	3	1	1	7YR		102	2754
866		178	3	1	1*	5YR	1128	282	846
		521	3	2	1	7YR	4840	745	4095
		106	3	2	1	7YR	1025	152	873
		746	3	2	3	7YR		533	6929
322		96	3	1	1*	5YR	424	106	318
		17	1	2	2	177			
	500	359	3	2	1*	3YR	1075	538	537
	1000	735	3	1	1*	5YR	3061	765	2296
MONTH 12						TENT. RECAP.		163	
		245	3	1	1*	3YR	1067		SOLD
		4450	3	2	3	8YR	38937	9734	29203
		2140	3	1	3	7YR	14298	4085	10213
						20-PER-CENT		1869	
		935	3	1	1	7YR		267	7209
		15	1	2	2	158			
						20-PER-CENT		1417	
		3000	3	1	1	7YR		1021	27562
MONTH 07						TENT. RECAP.		344	
914	400	344	3	2	3	7YR	2507		SOLD
1737	400	424	3	2	3	7YR	3093	884	2209
1372	500	427	3	1	3	7YR	3159	903	2256
		10	3	1	1	7YR	62	16	46
		24	3	1	3	7YR	202	58	144
		738	3	1	3	7YR		1054	6322
		272	3	1	3	10YR	2443	489	1954
		74	3	2	3	7YR		158	577
		46	3	1	2	66			
			0	1	1*	2YR	183	183	
		42	3	2	3	7YR		60	361

ATTACHMENT VII

Form 31

Livestock ENTERPRISE DATA

FEED RECORD

MO	PROTEINS		GRAINS						ROUGHAGE:						VET & MED	OTHER LIVESTOCK EXP.
			CORN						HAY		SILAGE		PASTURE			
	AMT	$	Bu	$	Amt	$	Amt	$	TONS	$	TONS	$	DAYS	UNITS	$	$
JAN																
FEB																
MAR																
APR																
MAY																
JUN																
JUL																
AUG																
SEPT																
OCT																
NOV																
DEC																
TOTAL																

Mo.	DEATH LOSS		BREEDING RECORD					Mo	DEATH LOSS		BREEDING RECORD				
	No	WT.	No. F. IN HERD	No F. BRED	No. OF BIRTHS	No BORN	No WEANED		No	WT	No. F IN HERD	No F BRED	No OF BIRTHS	No BORN	No WEANED.
JAN.								JUL.							
FEB.								AUG.							
MAR.								SEPT.							
APR.								OCT.							
MAY.								NOV.							
JUN.								DEC.							

REFERENCES

CROP RECORD

Form 33

CROP	FIELD NO	ACRES OWNED	 RENTED	 TOTAL	YIELD PER ACRE	PRODUCTION TOTAL (tons)	 Operator Share (tons)	 LandLord share (tons)	ENTERPRISE EXPENSE FERT LIME	 CROP CHEM	 SEEDS & SUPPLIES	 —
SILAGE												
OTAL SILAGE												
THER CROPS						PRODUCTION TOTAL (tons)	Operator share (tons)	Landlord share (tons)				
OTAL OTHER CROPS												
AY&ROTATION PASTURE					HAY							
					1st cutting							
					2nd cutting							
					3rd cutting							
TAL HAY&ROTATION PASTURE												
OTAL GRAIN CROPS												
OTAL SILAGE					Grass Silage							
TAL OTHER CROPS					1st cutting							
TAL HAY&ROTATION PASTURE					2nd cutting							
DLE TILLABLE LAND					3rd cutting							
IONTILLABLE PASTURE												
NOODLAND												
ARMSTEAD, ROADS ETC												
OTAL FARM.												

AND INVENTORY	ACRES OWNED	 RENTED	 TOTAL	VALUE PER ACRE	TOTAL VALUE OWNED	 RENTE	 TOTAL
ILLABLE CROPLAND		▨				▨	
	▨				▨		
ONTILLABLE PASTURE		▨				▨	
	▨				▨		
THER LAND		▨				▨	
	▨				▨		
	▨				▨		
OTAL							

GRAIN CROPS ENTERPRISE RECORD

CROP	FIELD NO	ACRES			YIELD PER ACRE	PRODUCTION			ENTERPRISE EXPENSE			
		OWNER	RENTED	TOTAL		TOTAL (QUANTITY)	OPERATOR SHARE (QUANTITY)	LANDLORD SHARE (QUANTITY)	FERT LIME	CROP CHEM	SEED & SUPPLIES	—
CORN FOR GRAIN												
TOTAL CORN FOR GRAIN	▨											
SOYBEAN FOR GRAIN												
TOTAL SOYBEAN FOR GRAIN	▨											
WHEAT FOR GRAIN												
TOTAL WHEAT FOR GRAIN	▨											
MILO FOR GRAIN												
TOTAL MILO FOR GRAIN	▨											
OTHER GRAIN CROPS												
DIVERTED ACRES												
TOTAL GRAIN CROPS												

ATTACHMENT VIII

Proposed Course Outlines

for the

Missouri Farm Business Management and Analysis Program

UNIT I - Establishing a Farm Accounting System

Lesson	Title	Month	Competency
1	Orientation to the Farm Business Management and Analysis Program	October	6
2	Introduction to Keeping Records	November	7
3	Recording Receipts and Expenditures	December	7
4	Planning the Year's Cash Flow	January	1, 36
5	Developing Depreciation Schedules for Machinery	February	15
6	Developing Depreciation Schedules for Livestock and Real Estate	March	15
7	Setting Up Farm Inventories and Financial Statements	April	14
8	Keeping Enterprise Records	May	5
9	Making a Mid-Year Check	June	4
10	Using Concept of Time Value in Planning	September	24

UNIT II - Analysis of the Farm Business

Lesson	Title	Month	Competency
1	Using Fixed:Variable Costs in Planning	October	16
2	Income Tax Management	November	22
3	Closing the Record Book	December	8, 11
4	Planning This Year's Cash Flow	January	2
5	Analyzing the Profit/Loss Statement and Income Tax Return	February	23, 9
6	Analyzing the Livestock Enterprises	March	25
7	Analyzing the Crop Enterprises	April	26
8	Analyzing Financial Statements	May	12, 18, 19, 20, 21
9	Making the Mid-Year Check	June	4
10	Utilizing Farm Credit	September	31, 32, 33

UNIT III - Adjusting the Farm Business to Increase Profit

Lesson	Title	Month	Competency
1	Expanding the Business by Buying/Renting Land/Machinery	October	30, 34, 35
2	Income Tax Management	November	29
3	Closing the Record Book	December	8, 11
4	Planning This Year's Cash Flow	January	3
5	Analyzing the Farm Business	February	10, 13
6	Lowering Operating and Overhead Costs	March	17
7	Determining the Most Profitable Cropping System	April	26
8	Determining the Most Profitable Livestock System	May	25
9	Adjusting Capital Investments to Increase Net Profit	June	28
10	Increasing Labor Efficiency	September	27

UNIT IV - Advanced Farm Business Management*

Lesson	Title	Month	Competency
1	Income Tax Management	November	22, 29
2	Closing the Record Book	December	8, 11
3	Planning This Year's Cash Flow	January	1, 2, 3, 36
4	Analyzing the Farm Business	February	23, 9

*Others as requested.

FINANCIAL MANAGEMENT COMPETENCIES

Please respond to the following set of competencies or activities in relationship to their importance for a farmer to be successful. Confine your answers to the following set of numbers and their corresponding meanings.

1-no importance; 2-little importance; 3-important; 4-very important; and, 5-essential

UNIT	LESSON		Credit Person's Responses		Instructor's Responses		Farmer's Responses	
			mean	S.D.	mean	S.D.	mean	S.D.
I	4	1. Be able to develop a planned cash flow for use in the farming business for the upcoming year.	4.30	1.16	4.80	.42	4.68	.59
II	4	2. Be able to analyze a planned cash flow for use in the farming business for the upcoming year.	4.10	.99	4.60	.52	4.62	.64
III	4	3. Be able to interpret a planned cash flow for use in the farming business for the coming year.	4.10	1.20	4.60	.52	4.76	.48
I	9	4. Be able to use and monitor a planned cash flow for use in the farming business throughout the year.	4.00	1.15	4.80	.42	4.44	.70
I	8	5. Be able to base decision making in the area of cash flow on the analysis of enterprise budgets.	3.80	1.23	4.20	1.03	4.38	.75
I	1	6. Be able to develop realistic family and farm business goals which give consideration to family living requirements and business requirements over the next five years.	3.60	1.17	4.40	.70	4.40	.78
I	2, 3	7. Be able to record expenses and receipts and determine gross profit.	4.70	.67	4.70	.67	4.70	.58
II	3	8. Be able to complete a profit and loss statement for their farming business.	4.50	.53	4.60	.70	4.56	.61

II	5	9. Be able to analyze a profit and loss statement for their farming business.	4.20	.92	4.30	1.06	4.46	.71
III	5	10. Be able to use a profit and loss statement to make managerial decisions for their farming business.	4.20	.92	4.40	.97	4.50	.71
II	3	11. Be able to complete a financial statement for their farming business.	4.60	.52	4.80	.42	4.54	.73
II	8	12. Be able to use a financial statement based on their farming business.	4.00	.82	4.60	.52	4.34	.77
III	5	13. Be able to use a financial statement based on their farming business to make managerial decisions.	4.10	.74	4.70	.48	4.32	.79
I	7	14. Be able to develop an inventory system for all property owned.	4.10	.88	4.30	.95	4.08	.94
I	5, 6	15. Be able to develop a depreciation schedule for depreciable items owned.	3.80	.92	4.20	1.03	4.50	.74
II	1	16. Be able to calculate fixed and variable costs data.	3.60	.84	4.10	.74	4.16	.98
III	6	17. Be able to analyze fixed and variable costs data to use in making managerial decisions.	3.70	.67	4.10	.74	4.08	1.05
II	8	18. Be able to analyze an asset to current liability ratio to make managerial decisions for the farming business.	3.60	.70	4.30	.67	4.12	1.14
II	8	19. Be able to analyze a current asset to current liability ratio to make managerial decisions for the farming business.	3.80	.79	4.30	.67	4.12	1.15
II	8	20. Be able to analyze ratio of capital turnover to make managerial decisions for the farming business.	3.20	1.03	3.90	.57	4.04	1.18

II	8	21. Be able to analyze a net income to current debt ratio to make managerial decisions for the farming business.	3.80	.63	4.10	.57	4.14	1.14
II	2	22. Be able to compute a fourth quarter analysis of their farming business to be used for tax planning.	3.60	.84	4.90	.32	4.52	.76
II	5	23. Be able to complete State and Federal Income tax forms.	3.00	.67	3.30	1.25	3.40	1.44
I	10	24. Be able to utilize the concept of time value of money in making managerial decisions.	3.40	1.26	3.80	.92	4.04	1.07
III II	6 6	25. Be able to make managerial decisions concerning efficiency factors for a given livestock enterprise.	3.70	.95	4.60	.52	4.52	.81
III II	7 7	26. Be able to make managerial decisions concerning efficiency factors for a given crop enterprise.	3.90	.88	4.40	.70	4.52	.68
III	10	27. Be able to make managerial decisions concerning labor efficiency for their farming operation.	3.70	1.06	4.40	.70	4.38	.78
III	9	28. Be able to make managerial decisions concerning the rate of return on investment for various farm enterprises and for entire farm.	4.10	.57	4.50	.53	4.42	.81
III	2	29. Be able to make managerial decisions concerning capital gain/loss.	3.30	1.49	4.40	.52	4.54	.73
III	1	30. Be able to make managerial decisions involving buying, renting and leasing facilities and machinery.	4.30	.67	4.30	.67	4.62	.70
II	10	31. Me able to analyze credit needs, sources, and interest rates in terms of the short, intermediate and long term loans.	4.70	.48	4.67	.50	4.70	.86

II	10	32. Be able to utilize the concept of financial leverage in maximizing profits.	3.70	.67	4.30	.67	4.46	.71
II	10	33. Be able to analyze the potential for expansions of the farm business.	4.00	.82	4.70	.48	4.54	.91
III	1	34. Be able to make managerial decisions involving buying, renting and leasing land.	4.30	.48	4.89	.33	4.62	.78
III	1	35. Be able to develop lease and partnership agreements that are equitable to all parties.	3.50	1.18	4.60	.52	4.30	1.18
I	4	36. Be able to develop a family cash flow plan.						
		OVERALL	3.91	.95	4.41	.74	4.39	.90

ATTACHMENT IX

Preliminary Draft

FARM BUSINESS MANAGEMENT AND ANALYSIS GUIDELINES

Introduction

Agriculture is one of the nation's largest and most important industries. American farmers produce most of the food and fiber needed for our expanding population and export a substantial amount to other countries each year. The ability to meet these needs efficiently and ecomonically will have a great impact on our citizens as consumers and in improving our balance of trade with other countries.

The Smith-Hughes Act of 1917 provided funding on a matching basis with the states for the purpose of promoting vocational agricultural education for present and prospective farmers in the public schools. Subsequent vocational acts have provided additional emphasis for vocational agricultural education for postsecondary and adult students. Historically, state and federal monies have provided a substantial part of the funding of salaries for teachers of adults in vocational agriculture. In Missouri, many local school districts have provided their share of funding for adult programs as an investment in its own future, since the community which supports the school is dependent upon a prosperous agriculture.

Local funding is permissive in accordance with State Statute 171091 which states, "Local districts may provide gratuitous education for individuals 21 years of age and older."

Great advances in the science and technology of farming have been made over the past twenty years. More progress has been made in the productivity per farmer since 1940 than in all of recorded history. Change in the area of financial management has not been as fast. Rewards for good financial management are not received immediately and, thus, change is more gradual and over a longer period of time. Indeed, farming has become and will continue to be a complex business requiring the use of technology and economic and management information. Because of the complexity involved in farming, there exists a continual need for educational training.

In order to meet the needs of the young adult farmers in the state of Missouri in the area of financial management and analysis of financial records, the Farm Business Management and Analysis Program (FBMA) has been developed. The relationship this program has with other existing phases of the total vocational agriculture adult program is outlined in Table 1, Table 2 and Table 3 for full-time adult teachers, part-time adult teachers and single teacher departments, respectively.

The following areas are provided as guidelines for the Farm Business Management and Analysis Program.

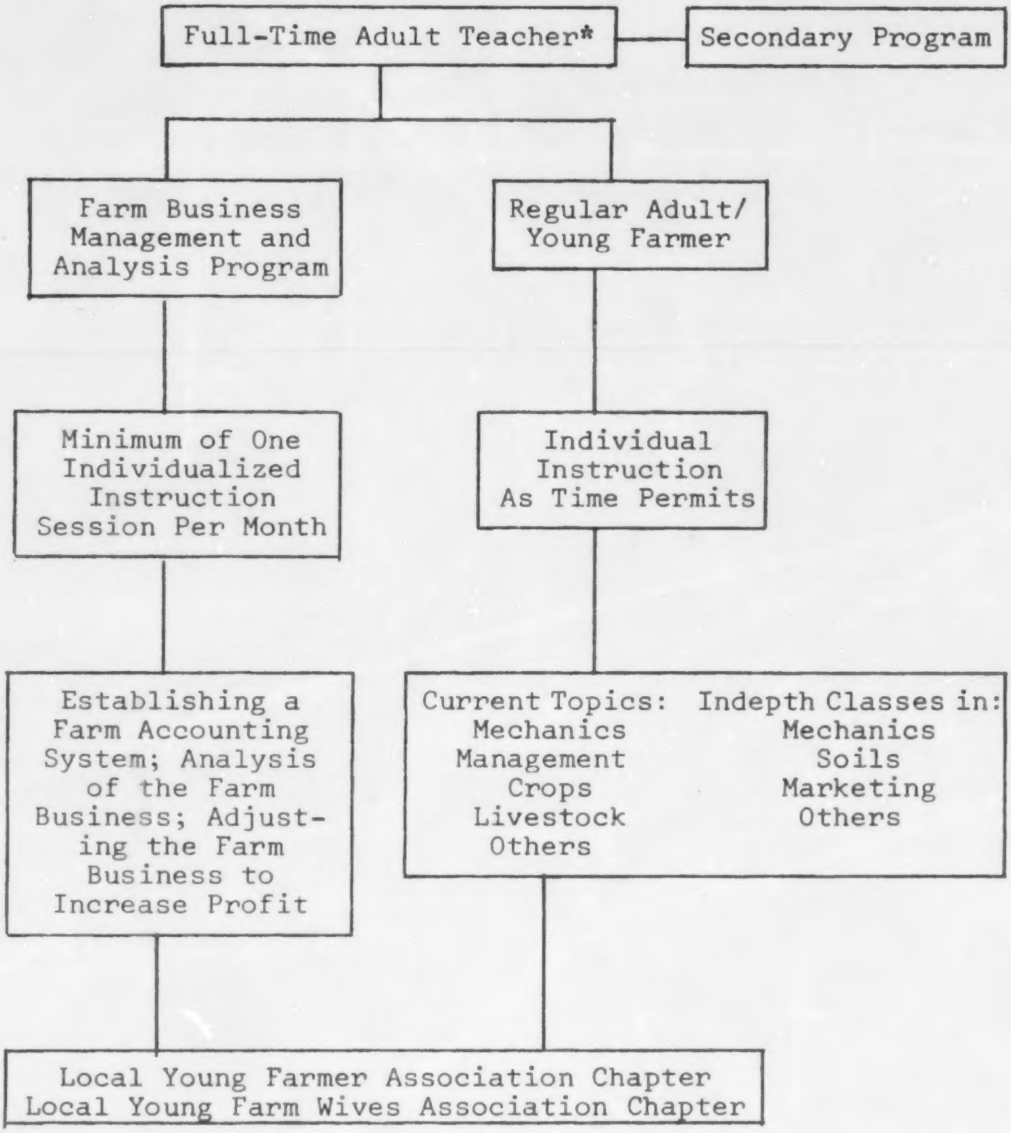
I. Instruction

The Farm Business Management and Analysis Program, designed as a portion of a total adult program, consists of three years of intensified instruction where teachers of vocational agriculture work with a selected group of farm families, both in the classroom and on their farms. Instruction, after the third year, is less intensified and, thus, less time is spent with each individual farmer.

The first year of instruction deals with the development of a complete set of farm records for summary and analysis. Instruction during the second year is directed towards the analysis and interpretation of the farm records

Table 1

RELATIONSHIP OF FULL-TIME ADULT TEACHER WITH TOTAL ADULT/YOUNG FARMER PROGRAM


Full-Time Adult Teacher*
Secondary Program
Farm Business Management and Analysis Program
Regular Adult/ Young Farmer
Minimum of One Individualized Instruction Session Per Month
Individual Instruction As Time Permits
Establishing a Farm Accounting System; Analysis of the Farm Business; Adjusting the Farm Business to Increase Profit
Current Topics: Mechanics Management Crops Livestock Others
Indepth Classes in: Mechanics Soils Marketing Others
Local Young Farmer Association Chapter
Local Young Farm Wives Association Chapter

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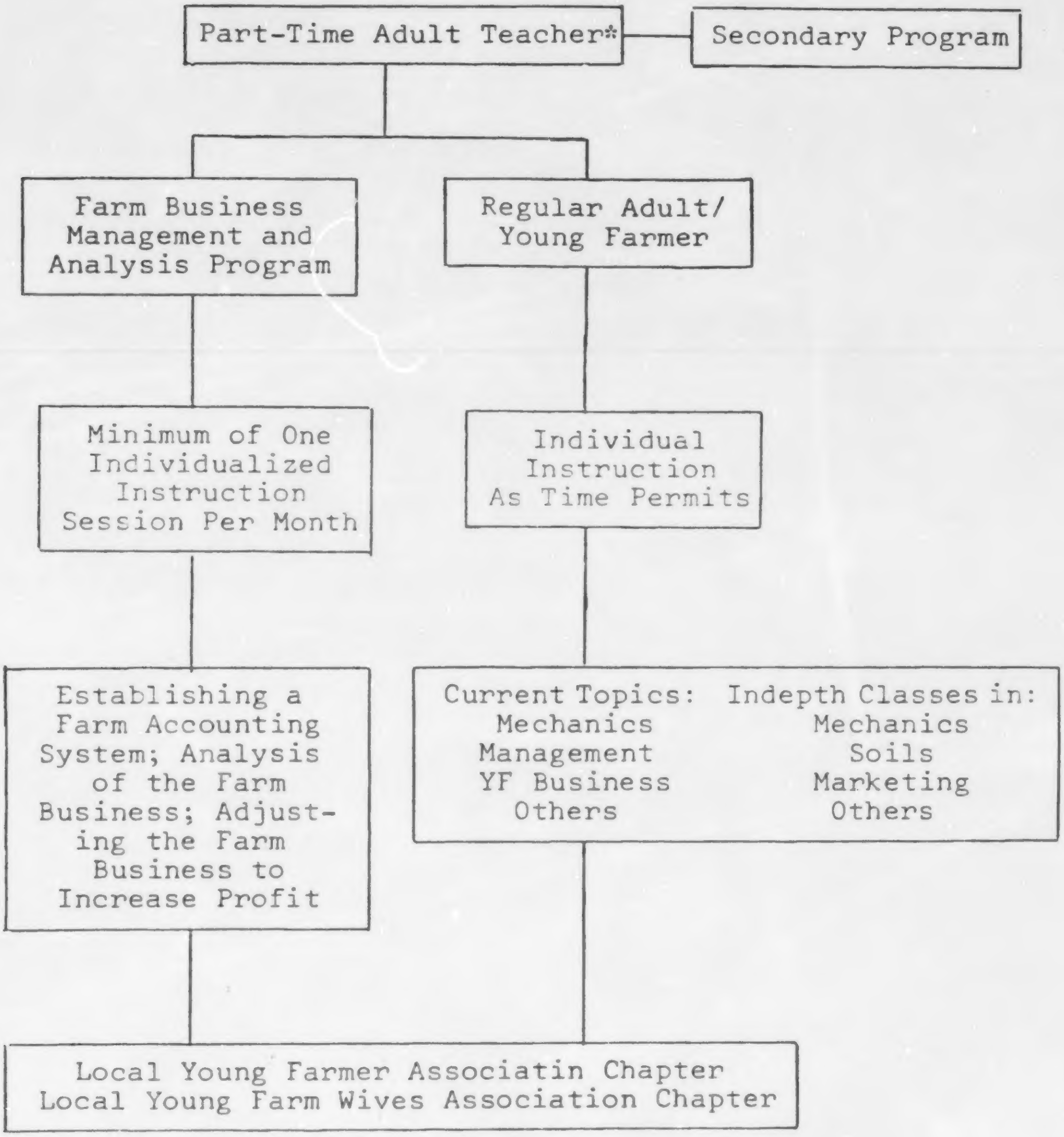
*The full-time teacher of adults is expected to provide regularly scheduled individualized instruction for a core group.

Table 2

RELATIONSHIP OF PART-TIME ADULT TEACHER WITH TOTAL ADULT/YOUNG FARMER PROGRAM


Part-Time Adult Teacher*
Secondary Program
Farm Business Management and Analysis Program
Regular Adult/ Young Farmer
Minimum of One Individualized Instruction Session Per Month
Individual Instruction As Time Permits
Establishing a Farm Accounting System; Analysis of the Farm Business; Adjusting the Farm Business to Increase Profit
Current Topics: Mechanics Management YF Business Others
Indepth Classes in: Mechanics Soils Marketing Others
Local Young Farmer Associatin Chapter
Local Young Farm Wives Association Chapter

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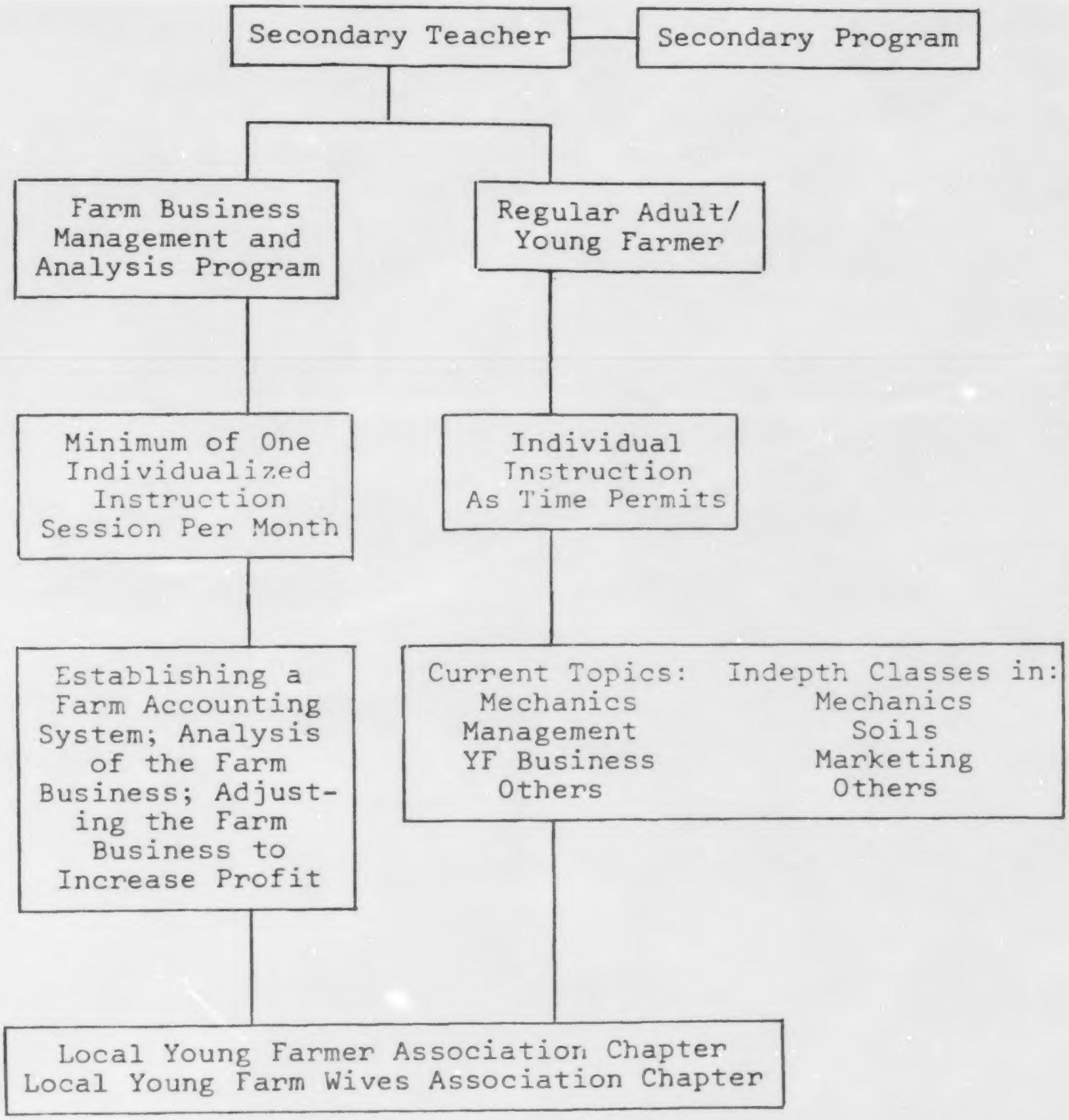
*The part-time teacher of adults is expected to provide regularly scheduled individualized instruction for a core group.

Table 3

RELATIONSHIP OF FULL-TIME SECONDARY TEACHER TO AN ADULT/YOUNG FARMER PROGRAM


Secondary Teacher
Secondary Program
Farm Business Management and Analysis Program
Regular Adult/ Young Farmer
Minimum of One Individualized Instruction Session Per Month
Individual Instruction As Time Permits
Establishing a Farm Accounting System; Analysis of the Farm Business; Adjusting the Farm Business to Increase Profit
Current Topics: Mechanics Management YF Business Others
Indepth Classes in: Mechanics Soils Marketing Others
Local Young Farmer Association Chapter
Local Young Farm Wives Association Chapter

kept during the first year. The third year of instruction deals with farm planning and reorganization based on the analysis of records analyzed during the first two years of instruction. Instruction following the third year consists of updating the farmer in selected areas and to continue farm planning and reorganization.

Unit titles for the four years are as follows: Establishing a Farm Accounting System, first year; Analysis of the Farm Business, second year; Adjusting the Farm Business to Increase Profit, third year; and, Advanced Farm Business Management, fourth year and beyond.

II. Provisions for Teachers Conducting the Farm Business Management and Analysis Program

Teachers conducting the Farm Business Management and Analysis Program fall into one of the following categories relative to the amount of time devoted to conducting the program:

A. Teachers in a multi-teacher department devoting 100 percent of their time to an adult program.

B. Teachers in a single- or multi-teacher department devoting between 25 and 75 percent of their time towards an adult program.

C. Teachers in a single-teacher department providing this type of instruction for four to six couples and the time spent is in addition to the secondary program.

III. Guidelines for the Operation of the Farm Business Management and Analysis Phase of the Program

An enrollment in the FBMA phase of the total adult program is suggested to be 20-24 enrollees for a full-time teacher of adults and 10-12 enrollees for a half-time teacher of adults. The teacher should also be advisor or co-advisor of the local Young Farmer chapter.

A. Full-Time Teacher

It is suggested, as a guideline, that full-time teachers would develop an enrollment in the FBMA program as follows:

Unit	Title	Enrollment Year 1	Enrollment Year 2	Enrollment Year 3
I	Establishing a Farm Accounting System	10	10	10
II	Analysis of the Farm Business	0	8-10	8-10
III	Adjusting the Farm Business to Increase Profit	0	0	6-10

B. Part-Time Teacher

It is suggested, as a guideline, that part-time teachers would develop an enrollment in direct relationship with their funding for adult work. As an example, a half-time teacher would have:

Unit	Title	Enrollment Year 1	Enrollment Year 2	Enrollment Year 3
I	Establishing a Farm Accounting System	5	5	5
II	Analysis of the Farm Business	0	4-5	4-5
III	Adjusting the Farm Business to Increase Profit	0	0	3-5

C. Secondary Teacher

It is suggested, as a guideline, that full-time secondary teachers participating in FBMA would schedule the enrollment as follows:

Unit	Title	Enrollment Year 1	Enrollment Year 2	Enrollment Year 3
I	Establishing a Farm Accounting System	4-6	0	0
II	Analysis of the Farm Business	0	4-6	0
III	Adjusting the Farm Business to Increase Profit	0	0	4-6

IV. Instructional Schedule

Teachers of adults schedule their time between group classes, individualized instruction and planning time in the office. Group classes are generally conducted at night. A balance of individualized instruction and planning time is maintained during the day.

V. Reimbursement to Local District

Assuming that each enrollee receives forty hours of instruction per year, instruction would include ten regularly scheduled two-hour group instruction sessions for all enrollees with the remainder of the instruction provided in two-hour individualized instruction sessions with each enrollee.

A. Reimbursement for full-time and part-time teachers of adults in agriculture would be included in the funding which the local district receives from the State Department of Elementary and Secondary Education.

B. Reimbursement for the full-time secondary teacher participating in the FBMA program is figured at the rate of 75 percent of the going rate for instruction time. If the going rate for instruction is ten dollars per hour, state reimbursement to the school would be \$300 (40 x \$10 = \$400 x .75 = \$300).

VI. Teacher Requirements

A. Teacher requirements are in accordance with the guidelines for certification developed by the Department of Elementary and Secondary Education.

B. Teachers should possess a thorough understanding of basic accounting principles, farm management procedures and participate in a series of inservice workshops concerning this program.

VII. Initiation of the FBMA Phase of the Adult Program

A. Local school districts must recognize the need for and the place of this type of instruction in their adult education program.

B. Local school districts with a full-time or part-time adult teacher should work with the Department of Elementary and Secondary Education in implementing the FBMA phase of the adult program. Teachers in secondary programs must have prior approval each year.

VIII. General Guidelines for Conducting Program

A. Teachers need to be highly selective in securing enrollment for these programs. Farmers must want to improve and increase the efficiency of their farm business if worthwile instruction in the FBMA is to result.

B. During the recruitment phase, teachers should make a personal contact with prospective enrollees explaining the purpose and objectives of this type of program and the possible advantages and outcomes to them should they decide to enroll. All enrollees will be required to keep a complete set of farm records and be willing to share, on a strictly confidential basis, their financial records with the teacher.

C. Farmers enrolled in the program should be encouraged to use the Farm Business Analysis Record Book, although other complete accounting systems may be used.

D. All persons involved in the decision making process of a farming operation should be enrolled in this program.

E. Sussessful meetings can be conducted with both single persons and/or couples in attendance.

F. Instruction in the FBMA should be planned for three years to be of maximum benefit to enrollees. Three years are necessary in order to obtain meaningful measures of performance for individual farm units.

G. A portion of each monthly meeting should be devoted to the discussion of specific accounting problems confronting enrollees.

H. The instructional meetings should start no later than October to assure ample time in preparation necessary to complete the beginning inventory in January.

I. Adequate time should be spent in preparation for each instructional session.

J. Definite objectives should be identified for each instructional session.

IX. Instructional Units

A. Establishing a Farm Accounting System

Lesson	Title
1	Orientation to the Farm Business Management and Analysis Program
2	Introduction to Keeping Records
3	Recording Receipts and Expenditures
4	Planning the Year's Cash Flow
5	Developing Depreciation Schedules for Marketing
6	Developing Depreciation Schedules for Livestock and Developing Inventories
7	Developing an Investment Record for Real Estate
8	Keeping Enterprise Records
9	Making the Mid-Year Cash Flow Check
10	Using Concept of Time Value in Planning

B. Analysis of the Farm Business

Lesson	Title
1	Planning Next Year's Cropping Program
2	Income Tax Management
3	Closing the Record Book
4	Planning This Year's Cash Flow
5	Income Tax Review

Lesson	Title
6	Analyzing Livestock Enterprises
7	Analyzing Crop Enterprises
8	Developing Financial Statements
9	Making the Mid-Year Cash Flow Check
10	Utilizing Farm Credit

C. Adjusting the Farm Business to Increase Profit

Lesson	Title
1	Determining the Most Profitable Cropping System
2	Income Tax Management
3	Closing the Record Book
4	Planning This Year's Cash Flow
5	Analyzing the Farm Business
6	Lowering Operating Costs
7	Reducing Overhead Costs
8	Determining the Most Profitable Livestock System
9	Adjusting Capital Investments to Increase Net Profit
10	Increasing Labor Efficiency

X. Facilities

The following facilities and equipment are suggested for this program:

A. Office

An office should be provided which will coordinate with the total vocational agriculture program and allow easy accessibility for enrollees. Privacy for teacher-enrollee conferences should be maintained.

B. Equipment

The following list of equipment is suggested for this program:

1. Teacher's desk.
2. Work table and chairs.
3. Two four-drawer filing cabinets with locks.
4. Four electronic calculators with tape.
5. Private telephone.
6. Remote Computer Terminal (optional).
7. Programmable Calculator (optional).
8. Instructional materials for teacher and enrollees.

ATTACHMENT X

Ca, P, K NEEDED PER DAY

The program is designed to supplement the program developed by Dale Ratcliff on Basic Beef Nutrition. You need information from the Ratcliff program in order to complete the balancing for Calcium, Phosphorus, and Potassium.

Using the Program

1. Turn on the calculator and printer and follow this key sequence: CLR, 1, read side one of the card; CLR, 2, read side two of the card.

2. Enter the following information into the memory positions.

Information	Example	Your Ration		Memory
Pounds of Calcium needed/day	.016	_____	STO	00
Pounds of Phosphorus/day	.015	_____	STO	01
Pounds of Potassium/day	.08	_____	STO	02
% of Ca, P, K in Grain				
Calcium	.0002	_____	STO	03
Phosphorus	.0028	_____	STO	04
Potassium	.0028	_____	STO	05
% of Ca, P, K in Supplement				
Ca	.003	_____	STO	06
P	.0067	_____	STO	07
K	.0197	_____	STO	08
% of Ca, P, K in Hay				
Ca	.001	_____	STO	09
P	.001	_____	STO	10
K	.006	_____	STO	11

Figures from previous program:

Feed Required/Day	Example	Your Ration		Memory
Pounds grain	4.08	_____	STO	21
Pounds supplement	.23	_____	STO	22
Pounds hay	7.08	_____	STO	23

Run the first part of the program.

Key strokes.

CLR, RST, R/S

Results will be:

1. Pounds Ca needed per day in addition to that provided by feeds.
2. Pounds P needed per day in addition to that provided by feeds.
3. Pounds K needed per day in addition to that provided by feeds.

At this point, look to see if any values are negative; if they are, no value for that mineral needs to be entered to calculate pounds of supplemental minerals needed. (i.e.; if Phosphorus is negative, use limestone instead of dicalcium phosphate.)

Additional memory input.

Decimal amount of mineral found in source.

Calcium (dical. = .2) (limestone = .34)	.34	_____	STO	12
Phosphorus (dical. = .19)	.19	_____	STO	13
Potassium (Potassium chloride = .52) (K_2Co_3 = .57)	.52	_____	STO	14

After the entries are made, key: R/S

The result will be:

1. Pounds of Potassium source needed/day.

2. Pounds of Phosphorus source needed/day.
3. Pounds of Calcium source needed/day.

If the pounds needed per day in the first part of this program is negative, that mineral will not appear in the output.

Calculates $/Kcal each
and lbs. to add per animal/day
with your source

```
000  53   (
001  53   (
002  43  RCL
003  21   21
004  65   ×
005  43  RCL
006  06   06
007  54   )
008  85   +
009  53   (
010  43  RCL
011  22   22
012  65   ×
013  43  RCL
014  03   03
015  54   )
016  85   +
017  43  RCL
018  23   23
019  65   ×
020  43  RCL
021  09   09
022  54   )
023  54   )
024  95   =
025  42  STO
026  15   15
027  53   (
028  53   (
029  43  RCL
030  21   21
031  65   ×
032  43  RCL
033  07   07
034  54   )
035  85   +
036  53   (
037  43  RCL
038  22   22
039  65   ×
040  43  RCL
041  04   04
042  54   )
043  85   +
044  53   (
045  43  RCL
046  23   23
047  65   ×
048  43  RCL
049  10   10
050  54   )
051  54   )
052  95   =
053  42  STO
054  16   16
055  53   (
056  53   (
057  43  RCL
058  21   21
```

```
060  43  RCL
061  08   08
062  54   )
063  85   +
064  53   (
065  43  RCL
066  22   22
067  65   ×
068  43  RCL
069  05   05
070  54   )
071  85   +
072  53   (
073  43  RCL
074  23   23
075  65   ×
076  43  RCL
077  11   11
078  54   )
079  54   )
080  95   =
081  42  STO
082  17   17
083  53   (
084  43  RCL
085  00   00
086  75   -
087  43  RCL
088  15   15
089  54   )
090  95   =
091  42  STO
092  18   18
093  53   (
094  43  RCL
095  01   01
096  75   -
097  43  RCL
098  16   16
099  54   )
100  95   =
101  42  STO
102  19   19
103  53   (
104  43  RCL
105  02   02
106  75   -
107  43  RCL
108  16   16
109  54   )
110  95   =
111  42  STO
112  20   20
113  43  RCL
114  18   18
115  99  PRT
116  69  OP
117  00   00
118  02   2
119  07   7
120  01   1
121  04   4
```

```
123  00   0
124  00   0
125  00   0
126  01   1
127  05   5
128  69  OP
129  02   02
130  01   1
131  03   3
132  00   0
133  00   0
134  03   3
135  01   1
136  01   1
137  07   7
138  01   1
139  07   7
140  69  OP
141  03   03
142  01   1
143  06   6
144  01   1
145  07   7
146  01   1
147  06   6
148  00   0
149  00   0
150  00   0
151  00   0
152  69  OP
153  04   04
154  69  OP
155  05   05
156  98  ADV
157  43  RCL
158  19   19
159  99  PRT
160  69  OP
161  00   00
162  02   2
163  07   7
164  01   1
165  04   4
166  03   3
167  06   6
168  00   0
169  00   0
170  03   3
171  03   3
172  69  OP
173  02   02
174  00   0
175  00   0
176  03   3
177  01   1
178  01   1
179  07   7
180  01   1
181  07   7
182  01   1
183  06   6
184  69  OP
185  03   03
```

```
186  01  1
187  07  7
188  01  1
189  06  6
190  00  0
191  00  0
192  00  0
193  00  0
194  00  0
195  00  0
196  69 OP
197  04  04
198  69 OP
199  05  05
200  98 ADV
201  43 RCL
202  20  20
203  99 PRT
204  69 OP
205  00  00
206  02  2
207  07  7
208  01  1
209  04  4
210  03  3
211  06  6
212  00  0
213  00  0
214  02  2
215  06  6
216  69 OP
217  02  02
218  00  0
219  00  0
220  03  3
221  01  1
222  01  1
223  07  7
224  01  1
225  07  7
226  01  1
227  06  6
228  69 OP
229  03  03
230  01  1
231  07  7
232  01  1
233  06  6
234  00  0
235  00  0
236  00  0
237  00  0
238  00  0
239  00  0
240  69 OP
241  04  04
242  69 OP
243  05  05
244  98 ADV
245  98 ADV
246  91 R/S
247  43 RCL
248  20  20
```

```
249  95  =
250  22 INV
251  77  GE
252  11  A
253  98 ~~ADV~~ ÷
254  43 RCL
255  14  14
256  95  =
257  99 PRT
258  69 OP
259  00  00
260  02  2
261  07  7
262  01  1
263  04  4
264  03  3
265  06  6
266  00  0
267  00  0
268  02  2
269  06  6
270  69 OP
271  02  02
272  00  0
273  00  0
274  03  3
275  06  6
276  03  3
277  02  2
278  04  4
279  01  1
280  03  3
281  05  5
282  69 OP
283  03  03
284  01  1
285  05  5
286  01  1
287  07  7
288  00  0
289  00  0
290  00  0
291  00  0
292  00  0
293  00  0
294  69 OP
295  04  04
296  69 OP
297  05  05
298  98 ADV
299  43 RCL
300  18  18
301  95  =
302  22 INV
303  77  GE
304  12  B
305  55  ÷
306  43 RCL
307  12  12
308  95  =
309  99 PRT
310  69 OP
311  00  00
```

```
312  02  2
313  07  7
314  01  1
315  04  4
316  03  3
317  06  6
318  00  0
319  00  0
320  01  1
321  05  5
322  69 OP
323  02  02
324  01  1
325  03  3
326  00  0
327  00  0
328  03  3
329  06  6
330  03  3
331  02  2
332  04  4
333  01  1
334  69 OP
335  03  03
336  03  3
337  05  5
338  01  1
339  05  5
340  01  1
341  07  7
342  00  0
343  00  0
344  00  0
345  00  0
346  69 OP
347  04  04
348  69 OP
349  05  05
350  98 ADV
351  43 RCL
352  19  19
353  95  =
354  22 INV
355  77  GE
356  13  C
357  55  ÷
358  43 RCL
359  13  13
360  95  =
361  99 PRT
362  69 OP
363  00  00
364  02  2
365  07  7
366  01  1
367  04  4
368  03  3
369  06  6
370  00  0
371  00  0
372  03  3
373  03  3
374  69 OP
```

```
375  02  02
376  00  0
377  00  0
378  03  3
379  06  6
380  03  3
381  02  2
382  04  4
383  01  1
384  03  3
385  05  5
386  69 OP
387  03  03
388  01  1
389  05  5
390  01  1
391  07  7
392  00  0
393  00  0
394  00  0
395  00  0
396  00  0
397  00  0
398  69 OP
399  04  04
400  69 OP
401  05  05
402  98 ADV
403  98 ADV
404  98 ADV
405  91 R/S
406  76 LBL
407  11  A
408  00  0
409  61 GTO
410  02  02
411  09  09
412  08  8
413  76 LBL
414  12  B
415  00  0
416  61 GTO
417  03  03
418  50  50
419  76 LBL
420  13  C
421  00  0
422  61 GTO
423  04  04
424  01  01
425  00  0
426  00  0
427  00  0
428  00  0
```

```
  0.00742
   LBS CA NEEDED

-0.0050316
   LBS P NEEDED

 0.0599684
   LBS K NEEDED



       0.52
   LBS K SOURCE

.0218235294
   LBS CA SOURCE
```

ACCESSING THE COMPUTERIZED SWINE LEAST-COST RATION

Procedures:

1. Set up the remote terminal according to directions given in the guide.
2. Dial the campus computer number (314) 882-8851, when you hear a signal (a loud tone) set the phone in the cradle and wait for the light which signals a connection.
3. Once you have been hooked up, push the return button once and type TSO. This will tell the computer which system you want to use of your programs. Push carriage return (CR).
4. It will answer: READY TO SYSTEM, BUSY, or NON-AVAIL.
5. If it answers READY TO SYSTEM, type LOGON. This will get you to the next step. If the answer is one of the two other possibilities, either type TSO again or hang up and try again later.
6. The computer will answer, ENTER USERID-, this is the account number of the project and will be given to you later (CR).
7. Then it will answer ENTER CURRENT PASSWORD-, this is a protective device to protect the money in the account, it will also be given to you later (CR).
8. You are now logged on to the computer, when the computer types READY, you type EX START.PUBLIC (CR).
9. The computer will now ask your last name, type it in (CR).

SUMMARY OF ENTRIES

1. TSO (CR)
2. LOGON (CR)
3. USERID (CR)
4. PASSWORD (CR)
5. EX START.PUBLIC (CR)
6. NAME (CR)

10. When the computer types, WHAT IS YOUR PROGRAM NAME?, enter FILE. You must build a file of information before the program will run (CR).
11. It will ask, ENTER FILE NAME:, enter your name (CR).
12. Then it will ask, IS THIS A NEW FILE?, enter YES (CR).
13. In this step you must enter the data from the four pages of the SWRATN handout.

From page one: Line number, Ration code, Balance code
Example: 1 3 1 Line 1, Developer ration, CP and Minerals
From page two: enter only if you have special ration needs.

ACCESSING THE COMPUTERIZED SWINE LEAST-COST RATION (continued)

From page three: Line no., Feed code, Price/cwt., Restriction code, amount in percent
Example: 20 3 5.71 1 50 Line 20, corn high lysine, price/cwt, maximum, 50%
Repeat for each feed available, but remember only one feed per line, carriage return for each line.

SUMMARY OF STEPS 10-13

FILE (CR)
NAME (CR)
NO (CR)

(When computer says) ENTER FILE DATA OR COMMAND
1 3 1 (CR) Line 1, developer, crude protein and minerals
20 3 5.71 1 50 (CR) Line 20, high lysine corn, price, maximum, percent
20 5 4.25 (CR) Line 21, milo, price/cwt.
22 7 4 1 50 (CR) Line 22, wheat, price/cwt., maximum, percent of ration
23 50 5 (CR) Line 23, bonemeal, price/cwt.
24 51 10 (CR) Line 24, limestone, price/cwt.
25 53 12 (CR) Line 25, dical phosphate, price/cwt.
26 34 14 (CR) Line 26, soybean meal 44%, price/cwt.
27 58 1 (CR) Line 27, salt, price/cwt.

14. After all the data has been fed into the file, type SAVE (CR). The computer will answer SAVED, this means the file you just built will be stored in memory for 30 days.

15. Type END (CR) after the SAVED is written to exit the file program.

16. The computer will ask, DO YOU WANT TO RUN ANOTHER PROGRAM?, and you should answer YES (CR).

17. The computer will ask, WHAT IS YOUR PROGRAM NAME?, you should type SWRATN (CR).

18. It will ask you for the file name that you just built, you type in your file name; i.e., BURHOE (CR).

19. It will ask for your last name--type it in; i.e., BURHOE (CR).

20. The computer will answer with, DO YOU WISH TO SEE THE INPUT FILE (YES OR NO):, (if you think you had an error answer YES (CR), or if you think the file is correct answer NO (CR).)

21. The computer will now run the program to calculate the least cost ration for the feed that you entered. Compare the output to the problem you did for lab.

21. The computer will now run the program to calculate the least cost ration for the feed that you entered. Compare the output to the problem you did for lab.

ACCESSING THE COMPUTERIZED SWINE LEAST-COST RATION (continued)

SUMMARY OF STEPS 14-20

SAVE (CR) or if you want to see the information stored type LIST (CR), this command will list all the input so you can check for mistakes. Correct by re-typing the line after the list has been repeated by the computer, then type SAVE (CR).

END (CR)
YES (CR)
SWRATN (CR)
FILE NAME (CR)
YOUR NAME (CR)
NO (CR)
program will now run

22. To sign off the computer when it asks if you want to run another program, type NO (CR), and the computer will sign-off.

23. Hang up the phone and turn off the machine.

USING THE COMPUTER IN PLANNING HEDGING PROGRAMS

```
              NOVEMBER 1979  SOYBEAN FUTURE STARTING MAY 1 1979          10:09
      OBS        DATE         X         D10AVG        D3AVG        CASH      BUY_SELL

        1       790501       7.22         .             .          6.73        HOLD
        2       790502       7.21         .             .          6.90        HOLD
        3       790503       7.21         .          7.21333       5.90        BUY
        4       790504       7.20         .          7.20667       6.92        BUY
        5       790507       7.11         .          7.17333       6.91        BUY
        6       790508       7.12         .          7.14333       6.84        BUY
        7       790509       7.15         .          7.12667       6.93        BUY
        8       790510       7.08         .          7.11667       6.80        BUY
        9       790511       7.08         .          7.10333       6.80        BUY
       10       790514       7.11       7.149        7.09000       6.78        SELL
       11       790515       7.17       7.144        7.12000       6.82        HOLD
       12       790516       7.18       7.141        7.15333       6.88        BUY
       13       790517       7.24       7.144        7.19667       6.95        BUY
       14       790518       7.16       7.140        7.19333       6.79        BUY
       15       790521       7.28       7.157        7.22667       6.86        BUY
       16       790522       7.27       7.172        7.23667       6.87        BUY
       17       790523       7.23       7.180        7.26000       6.89        BUY
       18       790524       7.21       7.193        7.23667       6.90        BUY
       19       790525       7.18       7.203        7.20667       6.89        HOLD
       20       790528       7.18       7.210        7.19000       6.90        SELL
       21       790529       7.28       7.221        7.21333       6.94        HOLD
       22       790530       7.26       7.229        7.24000       6.91        BUY
       23       790531       7.26       7.231        7.26667       6.94        BUY
       24       790601       7.32       7.247        7.28000       6.91        BUY
       25       790604       7.31       7.250        7.29667       6.98        BUY
       26       790605       7.29       7.252        7.30667       6.93        BUY
       27       790606       7.37       7.266        7.32333       7.07        BUY
       28       790607       7.45       7.290        7.37000       7.08        BUY
       29       790608       7.60       7.332        7.47333       7.16        BUY
       30       790611       7.66       7.380        7.57000       7.26        BUY
       31       790612       7.68       7.420        7.64667       7.21        BUY
       32       790613       7.80       7.474        7.71333       7.27        BUY
       33       790614       7.98       7.546        7.82000       7.42        BUY
       34       790615       8.14       7.628        7.97333       7.60        BUY
       35       790618       7.98       7.695        8.03333       7.49        BUY
       36       790619       7.91       7.757        8.01000       7.44        BUY
       37       790620       8.10       7.830        7.99667       7.74        BUY
       38       790621       8.13       7.898        8.04667       7.87        BUY
       39       790622       8.19       7.957        8.14000       8.18        BUY
       40       790625       8.12       8.003        8.14667       7.96        BUY
       41       790626       8.21       8.056        8.17333       7.90        BUY
       42       790627       7.96       8.072        8.09667       7.55        HOLD
       43       790628       7.69       8.043        7.95333       7.23        SELL
       44       790629       7.39       7.968        7.68000       6.93        SELL
       45       790702       7.44       7.914        7.50667       6.98        SELL
       46       790703       7.58       7.881        7.47000       7.10        SELL
       47       790705       7.78       7.849        7.60000       7.42        SELL
       48       790706       7.88       7.824        7.74667       7.41        HOLD
       49       790709       7.94       7.799        7.86667       7.52        BUY
       50       790710       7.68       7.755        7.83333       7.30        HOLD
       51       790711       7.81       7.715        7.81000       7.45        BUY
       52       790712       7.51       7.670        7.66667       7.12        SELL
       53       790713       7.61       7.662        7.64333       7.29        SELL
       54       790716       7.56       7.679        7.56000       7.28        SELL
```

```
         NOVEMBER 1979  SOYBEAN FUTURE STARTING MAY 1 1979       10:09 TU

OBS       DATE        X        D10AVG        D3AVG        CASH     BUY_SELL

 55      790717     7.66       7.701       7.61000       7.40       SELL
 56      790718     7.65       7.708       7.62333       7.55       SELL
 57      790719     7.60       7.690       7.63667       7.39       SELL
 58      790720     7.74       7.676       7.66333       7.47       HOLD
 59      790723     7.45       7.627       7.59667       7.33       SELL
 60      790724     7.50       7.609       7.56333       7.37       SELL
 61      790725     7.41       7.569       7.45333       7.21       SELL
 62      790726     7.41       7.559       7.44000       7.27       SELL
 63      790727     7.26       7.524       7.36000       7.14       SELL
 64      790730     7.08       7.476       7.25000       6.86       SELL
 65      790731     7.12       7.422       7.15333       6.91       SELL
 66      790801     7.15       7.372       7.11667       6.99       SELL
 67      790802     7.12       7.324       7.13000       7.06       SELL
 68      790803     7.13       7.263       7.13333       6.95       SELL
 69      790806     7.00       7.218       7.08333       6.76       SELL
 70      790807     6.99       7.167       7.04000       6.72       SELL
 71      790808     7.05       7.131       7.01333       6.90       SELL
 72      790809     7.03       7.093       7.02333       6.90       SELL
 73      790810     7.05       7.072       7.04333       6.89       SELL
 74      790813     6.92       7.056       7.00000       6.80       SELL
 75      790814     7.14       7.058       7.03667       7.02       HOLD
 76      790815     7.06       7.049       7.04000       6.96       HOLD
 77      790816     7.23       7.060       7.14333       7.00       BUY
 78      790817     7.17       7.064       7.15333       7.06       BUY
 79      790820     7.12       7.076       7.17333       7.01       BUY
 80      790821     7.30       7.107       7.19667       7.17       BUY
 81      790822     7.19       7.121       7.20333       7.08       BUY
 82      790823     7.22       7.140       7.23667       7.10       BUY
 83      790824     7.28       7.163       7.23000       7.13       BUY
 84      790827     7.18       7.189       7.22667       7.04       HOLD
 85      790828     7.22       7.197       7.22667       7.06       BUY
 86      790829     7.31       7.222       7.23667       7.11       BUY
 87      790830     7.25       7.224       7.26000       7.06       BUY
 88      790831     7.22       7.229       7.26000       7.04       HOLD
 89      790904     6.96       7.213       7.14333       6.66       SELL
 90      790905     7.08       7.191       7.08667       6.79       SELL
 91      790906     6.98       7.170       7.00667       6.73       SELL
 92      790907     6.98       7.146       7.01333       6.71       SELL
 93      790909     6.97       7.115       6.97667       6.77       SELL
 94      790910     7.07       7.104       7.00667       6.87       SELL
 95      790911     7.01       7.083       7.01667       6.73       SELL
 96      790912     7.05       7.057       7.04333       6.75       SELL
 97      790913     7.34       7.066       7.13333       7.17       BUY
 98      790914     7.18       7.062       7.19000       6.90       BUY
 99      790917     7.23       7.089       7.25000       6.84       BUY
100      790918     7.20       7.101       7.20333       6.74       BUY
101      790919     7.18       7.121       7.20333       6.79       BUY
102      790920     7.26       7.149       7.21333       6.79       BUY
103      790921     7.24       7.176       7.22667       6.76       BUY
104      790924     7.20       7.189       7.23333       6.67       BUY
105      790925     7.05       7.193       7.16333       6.50       SELL
106      790926     7.06       7.194       7.10333       6.50       SELL
107      790927     7.28       7.188       7.13000       6.66       HOLD
108      790928     7.12       7.182       7.15333       6.52       SELL
```

```
          NOVEMBER 1979  SOYBEAN FUTURE STARTING MAY 1 1979       10:09 T

OBS      DATE       X       D10AVG      D3AVG     CASH    BUY_SELL

109     791001     7.23     7.182     7.21000     6.62      BUY
110     791002     7.17     7.179     7.17333     6.61      SELL
111     791003     7.16     7.177     7.18667     6.51      HOLD
112     791004     7.13     7.164     7.15333     6.56      SELL
113     791005     7.11     7.151     7.13333     6.54      SELL
114     791008     6.99     7.130     7.07667     6.52      SELL
115     791009     6.89     7.114     6.99667     6.27      SELL
116     791010     6.90     7.098     6.92667     6.22      SELL
117     791011     6.83     7.053     6.87333     6.13      SELL
118     791012     6.76     7.017     6.83000     6.07      SELL
119     791015     6.58     6.952     6.72333     5.87      SELL
120     791016     6.59     6.894     6.64333     5.85      SELL
121     791017     6.63     6.841     6.60000     5.88      SELL
122     791018     6.61     6.789     6.61000     5.85      SELL
123     791019     6.56     6.734     6.60000     5.80      SELL
124     791022     6.53     6.688     6.56667     5.76      SELL
125     791023     6.45     6.644     6.51333     5.69      SELL
126     791024     6.45     6.599     6.47667     5.69      SELL
127     791025     6.44     6.560     6.44667     5.70      SELL
128     791026     6.32     6.516     6.40333     5.59      SELL
129     791029     6.37     6.495     6.37667     5.60      SELL
130     791030     6.37     6.473     6.35333     5.60      SELL
131     791031     6.44     6.454     6.39333     5.70      SELL
132     791101     6.38     6.431     6.39667     5.64      SELL
133     791102     6.44     6.419     6.42000     5.72      BUY
134     791105     6.46     6.412     6.42667     5.73      BUY
135     791106     6.44     6.411     6.44667     5.70      BUY
136     791107     6.45     6.411     6.45000     5.61      BUY
137     791108     6.48     6.415     6.45667     5.76      BUY
138     791109     6.51     6.434     6.48000     5.81      BUY
139     791112     6.55     6.452     6.51333     5.81      BUY
140     791113     6.63     6.478     6.56333     6.01      BUY
141     791114     6.71     6.505     6.63000     6.10      BUY
142     791115     6.76     6.543     6.70000     6.19      BUY
143     791116     6.74     6.573     6.73667     6.20      BUY
144     791119     6.68     6.595     6.72667     6.15      BUY
145     791120     6.74     6.625     6.72000     6.23      BUY
146     791121     6.89     6.669     6.77000     6.24      BUY
```

SWINE RATION COMPUTER PROGRAM UPDATED EDITION

```
TABLE 1.        FEED MIX FOR 100 POUNDS COMPLETE RATION
--------------------------------------------------------------------------------
FEED   FEED                                OUTGOING    PRICE/
CODE   INGREDIENT                            PRICE       CWT.      POUNDS      COST
  2    CORN                           $      5.15   $    5.00     28.12    $  1.41
  4    MILO                           $      4.05   $    4.05     57.31    $  2.32
 30    MEAT & BONE MEAL               $     12.00   $   12.00      4.17    $  0.50
 34    SOYBEAN MEAL 44%               $     10.88   $   10.70      9.51    $  1.02
 58    SALT                           $             $    3.00      0.50    $  0.01
 60    THOMPSON-HAYWOOD               $     75.31   $   75.00      0.39    $  0.30

           TOTALS                                                100.00    $  5.56

TABLE 2.       MIX FOR 100 POUNDS OF SUPPLEMENT
--------------------------------------------------------------------
FEED   FEED                                PRICE/
CODE   INGREDIENT                            CWT.       POUNDS        COST
 30    MEAT & BONE MEAL               $     12.00       28.63     $   3.44
 34    SOYBEAN MEAL 44%               $     10.70       65.23     $   6.98
 58    SALT                           $      3.00        3.43     $   0.10
 60    THOMPSON-HAYWOOD               $     75.00        2.70     $   2.03

           TOTALS                                     100.00     $  12.55


            HOW TO FEED SUPPLEMENT                POUNDS
       ABOVE SUPPLEMENT                           100.00
  2    CORN                                       192.96
  4    MILO                                       393.27

TABLE 3.        NUTRITIONAL SPECIFICATIONS
-----------------------------------------------------------------
                                 AMOUNT IN      RESTRICTION
NUTRIENT                          RATION     MINIMUM   MAXIMUM
DIGESTIBLE ENERGY (KCAL/LB)      1557.73     1540.00
CRUDE PROTEIN %                    14.13       14.00
CALCIUM %                            .50         .50       .70
PHOSPHOROUS %                        .53         .50
ZINC, GM/CWT                        6.39        4.00
SALT %                               .50         .50       .50
SBM CRUDE PROTEIN %                 4.35        2.40
LYSINE %                             .65         .60
METHIONINE %                         .18         .18
METHIONINE + CYSTINE %               .40         .40
TRYPTOPHAN %                         .14         .11
VIT. A, MIL IU/CWT                   .32         .06
VIT. D, MIL IU/CWT                   .08         .01
VIT. E, IU/CWT                    500.00      500.00
RIBOFLAVIN, GM/CWT                   .27         .10
PANTO. ACID, GM/CWT                  .85         .50
NIACIN, GM/CWT                      2.42         .50
CHOLINE, GM/CWT                    48.26       25.00
VIT. B12, MG/CWT                    1.42         .50
```

ABLE 4. FEEDS NOT IN RATION

EED ODE	FEED INGREDIENT	ASSIGNED PRICE	INCOMING PRICE
5	OATS	$ 6.30	$ 5.42
6	WHEAT	$ 6.15	$ 5.63
26	COTTONSEED MEAL	$ 13.30	$ 10.42
31	MEAT MEAL	$ 17.00	$ 13.18
50	BONE MEAL	$ 18.75	$ 2.83
51	LIMESTONE	$ 3.00	$ 3.00
53	PHOSPHATE, DICAL	$ 14.00	$ 2.70

```
REMOTE COMPUTER PLANNING                INCOME TAX MANAGEMENT
AGRICULTURAL ECONOMICS DEPT.            06/11/80
EXTENSION DIVISION                      EXAMPLE
UNIVERSITY OF MISSOURI                  UMC

FEDERAL INCOME TAX:                   1979      1980    2 YR. TOTAL
  GROSS FARM PROFIT                 122351    110000
  FARM DEDUCTIONS                   106951    106951
  NET FARM PROFIT                    15400      3049
  NET GAIN OR LOSS(SCH D & 4797)
  NET PARTNERSHIP INCOME
  NET NON-FARM INCOME                21250     22250
  SPOUSE'S INCOME
  LAST YEAR'S STATE TAX REFUND
  SUBTOTALS                          36650     25299
  RETIREMENT PLAN PAYMENTS
  FED ADJUSTED GROSS INCOME          36650     25299
  EXEMPTIONS AND DEDUCTIONS           5000      5000
  FEDERAL TAXABLE INCOME             31650     20299

  FED TAX DUE W/O AVERAGING           6849      3301
    MARGINAL TAX RATE                   37%       28%
  FED TAX DUE WITH AVERAGING          6761
    MARGINAL TAX RATE                   32%         %
  FED TAX DUE(LESSER OF ABOVE)        6761      3300     10061
  INVESTMENT CREDIT                   1246      1246
  OTHER TAX CREDITS
  NET TAX DUE AFTER CREDITS           5515      2055      7570


OCIAL SECURITY TAXES:
  TAXABLE NET FARM INCOME            15400      3049
  NET PARTNERSHIP INCOME
  WAGES&SAL. SUBJECT TO S.E. TAX
  OTHER NON-FARM EARNED INCOME
  SELF EMPLOYMENT NET EARNINGS       15400      3049
  MAX TAXABLE S.E. INCOME            22900     25900
  WAGES&SAL. WITH FICA WITHHELD      20500     21500
  TAXABLE SELF EMP NET EARNINGS       2400      3049
  SELF EMPLOYMENT TAX DUE              194       247       441

  SELF EMPLOYMENT MARGINAL RATE           %     8.10%
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ISSOURI INCOME TAX:
 FEDERAL ADJUSTED GROSS INCOME:
   FARM OPERATOR                     36650     25299
   SPOUSE
     TOTAL                           36650     25299
 MO. EXCESS ITEMIZED DEDUCTIONS          0         0
 FEDERAL INCOME TAX                   6761      3300
 PERSONAL & DEPENDENT EXEMPTION       7000      7000
 MISSOURI TAXABLE INCOME:
   FARM OPERATOR                     22889     14998
   SPOUSE
 MISSOURI TAX:
   FARM OPERATOR                      1148       675
   SPOUSE
     TOTAL                            1148       675      1823
 MISSOURI MARGINAL TAX RATE           6.00%     6.00%

OTAL TAX DUE AFTER CREDITS            6858      2977      9834
OMBINED MARGINAL TAX RATE            38.00%    42.10%

OTAL TAX DUE DISCOUNTED @ 10%         6858      2706      9564

HIFT IN INCOME NEEDED TO CHANGE FEDERAL TAX RATE

 FEDERAL TAXABLE INCOME              31650     20299
   DECREASE TO LOWER RATE             7051       100
   INCREASE TO RAISE RATE             3926      4302

ET TAX LIABILITY & MARGINAL RATES AFTER SHIFTING ◆EXPENSE◆ TO 1980.

                                                2 YR.   DISCOUNTED @ 10%
 AMOUNT    1979     1979       1980    1980     TOTAL     1980     TOTAL
 SHIFTED    TAX     RATE        TAX    RATE      TAX      RATE      TAX
       0   6858◆  38.00%◆      2977   42.10%     9834    38.27%     9564
     100   6894◆  38.00%◆      2936   38.10%     9830    34.64%     9563
    1100   7255◆  38.00%◆      2570   38.10%     9824    34.64%     9591

 INDICATES INCOME AVERAGING WAS USED.

 MAY NOW SPECIFY ANY AMOUNT TO SHIFT.
TER THE AMOUNT YOU WANT TO SHIFT AS A NEGATIVE TO SHIFT INCOME FROM 1979
 1980.  ENTER IT AS A POSITIVE NUMBER TO SHIFT FROM 1980 TO 1979.
 YOU DO NOT WANT TO EVALUATE A SHIFT ENTER ZERO.

TER AMOUNT TO SHIFT:1000
    1000   7219◆  38.00%◆      2606   38.10%     9825    34.64%     9588

TER AMOUNT TO SHIFT:-1000
   -1000   6532   43.00%       3381   42.10%     9913    38.27%     9606
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